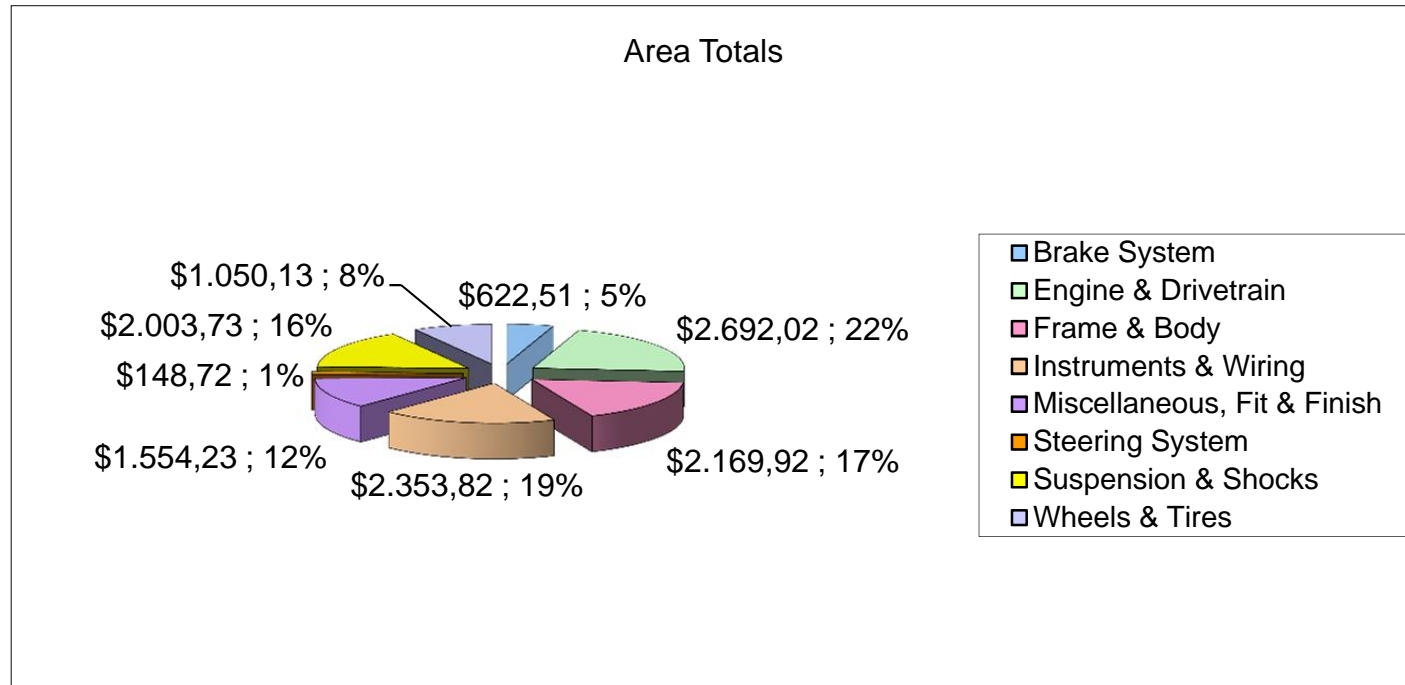


Cost Summary Basics



Area Totals	Materials	Processes	Fasteners	Tooling	Total
Brake System	\$ 543,57	\$ 66,38	\$ 12,56	\$ -	\$ 622,51
Engine & Drivetrain	\$ 2.343,66	\$ 326,34	\$ 15,51	\$ 6,51	\$ 2.692,02
Frame & Body	\$ 988,07	\$ 1.115,99	\$ 12,17	\$ 53,69	\$ 2.169,92
Instruments & Wiring	\$ 2.302,15	\$ 51,67	\$ -	\$ -	\$ 2.353,82
Miscellaneous, Fit & Finish	\$ 1.432,49	\$ 112,82	\$ 3,30	\$ 5,62	\$ 1.554,23
Steering System	\$ 75,95	\$ 62,09	\$ 9,19	\$ 1,49	\$ 148,72
Suspension & Shocks	\$ 1.388,84	\$ 574,58	\$ 32,28	\$ 8,03	\$ 2.003,73
Wheels & Tires	\$ 979,17	\$ 49,58	\$ 21,12	\$ -	\$ 1.050,13
Total Vehicle	\$ 10.053,90	\$ 2.359,44	\$ 106,13	\$ 75,34	\$ 12.595,07

Composition for total vehicle:



Area of Commodity	Asm/Prt #	Rev. Lvl.	Asm	Component	Description	Unit Cost	Quantity	Material Cost	Process Cost	Fastener Cost	Tooling Cost	Total Cost	Details Page Number
Brake System	A1100	AA	Front Brakes			0,00	1	0,00	0,00	0,00	0,00	0,00	5
	11001	AA		Brake Disc		14,55	2	2,18	10,39	1,98	0,00	29,11	6
	11002	AA		Brake Pad		23,68	4	23,55	0,13	0,00	0,00	94,71	7
	11003	AA		Caliper		56,16	2	55,00	0,50	0,66	0,00	112,32	8
	A1200	AA	Rear Brakes			0,00	1	0,00	0,00	0,00	0,00	0,00	9
	12001	AA		Brake Disc		13,56	2	1,48	10,10	1,98	0,00	27,13	10
	12002	AA		Brake Pad		12,76	4	12,63	0,13	0,00	0,00	51,02	11
	12003	AA		Caliper		31,16	2	30,00	0,50	0,66	0,00	62,32	12
	A1300	AA	Brake Circuit			3,25	1	0,75	2,50	0,00	0,00	3,25	13
	13001	AA		Master Cylinder		26,68	2	26,00	0,31	0,37	0,00	53,36	14
	13002	AA		Fluid Reservoir		5,00	2	5,00	0,00	0,00	0,00	10,00	15
	13003	AA		Balance Bar		29,28	1	28,40	0,88	0,00	0,00	29,28	16
	13004	AA		Brake Bias Adjuster	incl. in part 33001	0,00	1	0,00	0,00	0,00	0,00	0,00	17
	13005	AA		Tubing & Fittings		150,02	1	130,40	18,36	1,26	0,00	150,02	18
Brake System				Area Total				543,57	66,38	12,56	0,00	622,51	

Area of Commodity	Asm/Prt #	Rev. Lvl.	Asm	Component	Description	Unit Cost	Quantity	Material Cost	Process Cost	Fastener Cost	Tooling Cost	Total Cost	Details Page Number
Engine & Drivetrain	A2100	AA	Fuel Assembly			0,00	1	0,00	0,00	0,00	0,00	0,00	19
	21001	AA		Fuel Tank		25,18	1	8,20	13,67	2,81	0,50	25,18	20
	21002	AA		Fuel Filter		8,00	1	8,00	0,00	0,00	0,00	8,00	21
	21003	AA		Fuel Pump		120,00	1	120,00	0,00	0,00	0,00	120,00	22
	21004	AA		Fuel Pressure Regulator		8,00	1	8,00	0,00	0,00	0,00	8,00	23
	21005	AA		Fuel Check Valve		15,00	1	15,00	0,00	0,00	0,00	15,00	24
	21006	AA		Fuel Rail		4,39	1	1,39	3,00	0,00	0,00	4,39	25
	21007	AA		Fuel Injector		30,00	4	30,00	0,00	0,00	0,00	120,00	26
	21008	AA		Fuel Lines		0,19	1	0,19	0,00	0,00	0,00	0,19	27
	A2200	AA	Air Intake Assembly			3,79	1	0,40	2,99	0,40	0,00	3,79	28
	22001	AA		Air Filter		15,49	1	14,12	0,63	0,74	0,00	15,49	29
	22002	AA		Throttle Body		7,93	1	2,51	2,09	0,00	3,33	7,93	30
	22003	AA		Intake Manifold		44,67	1	40,30	4,31	0,06	0,00	44,67	31
	22004	AA		Intake Gasket		3,05	1	0,29	2,76	0,00	0,00	3,05	32
	A2300	AA	Engine Assembly			0,00	1	0,00	0,00	0,00	0,00	0,00	33
	23001	AA		Engine	Suzuki GSX-R600	1509,31	1	1499,75	6,38	3,18	0,00	1509,31	34
	A2400	AA	Cooling Assembly			0,00	1	0,00	0,00	0,00	0,00	0,00	35
	24001	AA		Radiator		79,28	1	64,02	14,84	0,42	0,00	79,28	36
	24002	AA		Coolant Circuit		45,67	1	33,37	6,90	5,40	0,00	45,67	37
	A2500	AA	Exhaust Assembly			0,00		0,00	0,00	0,00	0,00	0,00	38
	25001	AA		Header Flange		4,12	4	0,06	4,06	0,00	0,00	16,47	39
	25002	AA		Header		8,53	4	2,53	6,00	0,00	0,00	34,12	40
	25003	AA		Exhaust Tubing	Two stages	2,59	1	2,59	0,00	0,00	0,00	2,59	41
	25004	AA		Collector, 1st Stage		14,29	2	1,38	12,24	0,00	0,67	28,58	42
	25005	AA		Collector, 2nd Stage		15,86	1	1,23	13,96	0,00	0,67	15,86	43
	25006	AA		Muffler		42,45	1	34,48	7,30	0,00	0,67	42,45	44
	A2600	AA	Drivetrain Assembly			5,00	1	0,00	5,00	0,00	0,00	5,00	45
	26001	AA		Driving Sprocket		3,04	1	0,27	2,77	0,00	0,00	3,04	46
	26002	AA		Driven Sprocket		16,49	1	2,32	13,03	1,14	0,00	16,49	47
	26003	AA		Chain		60,00	1	60,00	0,00	0,00	0,00	60,00	48
	26004	AA		Chain Guard		4,65	1	0,71	3,80	0,14	0,00	4,65	49
	26005	AA		Differential Housing		75,11	1	14,88	59,99	0,24	0,00	75,11	50
	26006	AA		Differential Internals		165,00	1	165,00	0,00	0,00	0,00	165,00	51
	26007	AA		Differential Carrier		67,14	2	24,97	41,83	0,34	0,00	134,27	52
	26008	AA		Half Axles	Set of two	28,44	1	13,60	14,54	0,30	0,00	28,44	53
	26009	AA		C-V Joint		25,00	2	25,00	0,00	0,00	0,00	50,00	54
Engine & Drivetrain				Area Total				2343,66	326,34	15,51	6,51	2692,02	

Area of Commodity	Asm/Prt #	Rev. Lvl.	Asm	Component	Description	Unit Cost	Quantity	Material Cost	Process Cost	Fastener Cost	Tooling Cost	Total Cost	Details Page Number
Frame & Body	A3100	AA	Frame Assembly			0,00	1	0,00	0,00	0,00	0,00	0,00	55
	31001	AA		Frame	Tubular. All steel	399,95	1	109,35	260,60	0,00	30,00	399,95	56
	31002	AA		Tab Stock	All Steel.	42,44	1	0,93	36,52	0,00	5,00	42,44	57
	A3200	AA	Body			0,00	1	0,00	0,00	0,00	0,00	0,00	58
	32001	AA		Nose Cone	Glass Fiber, 3 plies	310,15	1	150,00	153,89	1,80	4,46	310,15	59
	32002	AA		Left Side Panel	Glass Fiber, 3 plies	163,99	1	80,40	79,14	2,16	2,29	163,99	60
	32003	AA		Right Side Panel	Glass Fiber, 3 plies	163,99	1	80,40	79,14	2,16	2,29	163,99	61
	32004	AA		Engine Hood	Glass Fiber, 3 plies	171,02	1	84,00	82,82	1,80	2,40	171,02	62
	32005	AA		Floor Pan	Carbon Fiber, 4 plies	786,19	1	353,00	421,69	4,25	7,25	786,19	63
	A3300	AA	Pedals Assembly			0,00	1	0,00	0,00	0,00	0,00	0,00	64
	33001	AA		Pedal Assembly	Model OBP0181. Includes part 13004.	112,06	1	110,00	2,06	0,00	0,00	112,06	65
	33002	AA		Shifter		20,13	1	20,00	0,13	0,00	0,00	20,13	66
Frame & Body				Area Total				988,07	1115,99	12,17	53,69	2169,92	

Area of Commodity	Asm/Prt #	Rev. Lvl.	Asm	Component	Description	Unit Cost	Quantity	Material Cost	Process Cost	Fastener Cost	Tooling Cost	Total Cost	Details Page Number
Instruments	A4100	AA	Power Supply & Safety			4,50	1	4,50	0,00	0,00	0,00	4,50	67
& Wiring	41001	AA		Battery	Lead Acid. 12 V	15,31	1	15,00	0,31	0,00	0,00	15,31	68
	41002	AA		Primary Kill Switch	Rotary	4,75	1	3,00	1,75	0,00	0,00	4,75	69
	41003	AA		Cockpit Kill Switch	Push/Pull	4,75	1	3,00	1,75	0,00	0,00	4,75	70
	41004	AA		Brake Overtravel Switch	Toggle	5,00	1	5,00	0,00	0,00	0,00	5,00	71
	A4200	AA	Engine Electronics			0,00	1	0,00	0,00	0,00	0,00	0,00	72
	42001	AA		Engine Control Unit	MoTeC M400	1615,00	1	1615,00	0,00	0,00	0,00	1615,00	73
	42002	AA		Engine Sensors		26,00	1	26,00	0,00	0,00	0,00	26,00	74
	42003	AA		Wire Harness		1,35	1	1,35	0,00	0,00	0,00	1,35	75
	A4300	AA	Dash Panel			0,00	1	0,00	0,00	0,00	0,00	0,00	76
	43001	AA		Display & Data Logger	AiM MyChron 3 Plus	600,00	1	600,00	0,00	0,00	0,00	600,00	77
	43002	AA		Speedometer		11,80	1	11,80	0,00	0,00	0,00	11,80	78
	A4400	AA	Brake Light Assembly			0,00	1	0,00	0,00	0,00	0,00	0,00	79
	44001	AA		Brake Light		4,00	1	4,00	0,00	0,00	0,00	4,00	80
	44002	AA		Brake Light Circuit		61,36	1	13,50	47,86	0,00	0,00	61,36	81
Instruments & Wiring				Area Total				2302,15	51,67	0,00	0,00	2353,82	

Area of Commodity	Asm/Prt #	Rev. Lvl.	Asm	Component	Description	Unit Cost	Quantity	Material Cost	Process Cost	Fastener Cost	Tooling Cost	Total Cost	Details Page Number
Miscel., Fit & Finish	A5100	AA	Seat & Cockpit Safety			0,00	1	0,00	0,00	0,00	0,00	0,00	82
	51001	AA		Seat	Includes Headrest	1416,16	1	1329,28	83,07	1,86	1,95	1416,16	83
	51002	AA		Driver's Harness		46,72	1	45,00	1,00	0,72	0,00	46,72	84
	51003	AA		Fire Wall		91,34	1	58,20	28,75	0,72	3,67	91,34	85
Miscel., Fit & Finish				Area Total				1432,49	112,82	3,30	5,62	1554,23	

Area of Commodity	Asm/Prt #	Rev. Lvl.	Asm	Component	Description	Unit Cost	Quantity	Material Cost	Process Cost	Fastener Cost	Tooling Cost	Total Cost	Details Page Number
Steering System	A6100	AA	Steering Wheel Assembly			0,00	1	0,00	0,00	0,00	0,00	0,00	86
	61001	AA		Steering Wheel		13,60	1	8,19	5,26	0,00	0,15	13,60	87
	61002	AA		Quick Release		2,18	1	1,39	0,60	0,19	0,00	2,18	88
	A6200	AA	Steering Shaft Assembly			0,00	1	0,00	0,00	0,00	0,00	0,00	89
	62001	AA		Steering Shaft	Collapsable type	7,81	1	1,24	5,90	0,00	0,67	7,81	90
	62002	AA		Steering Shaft Joints	Set of two	42,08	1	40,00	1,00	1,08	0,00	42,08	91
	A6300	AA	Steering Rack Assembly			0,00	1	0,00	0,00	0,00	0,00	0,00	92
	63001	AA		Pinion Gear		6,38	1	0,62	5,16	0,60	0,00	6,38	93
	63002	AA		Rack Gear		4,42	1	1,30	2,52	0,60	0,00	4,42	94
	63003	AA		Steering Rack		8,84	1	1,63	7,21	0,00	0,00	8,84	95
	63004	AA		Housing		13,01	1	1,17	11,84	0,00	0,00	13,01	96
	A6400	AA	Tie Rod Assembly			19,20	1	0,00	12,48	6,72	0,00	19,20	97
	64001	AA		Tie Rod		3,73	2	1,33	2,06	0,00	0,33	7,45	98
	64002	AA		Rod Ends		5,94	4	4,44	1,50	0,00	0,00	23,76	99
Steering System				Area Total				75,95	62,09	9,19	1,49	148,72	

Area of Commodity	Asm/Prt #	Rev. Lvl.	Asm	Component	Description	Unit Cost	Quantity	Material Cost	Process Cost	Fastener Cost	Tooling Cost	Total Cost	Details Page Number
Suspension	A7100	AA	Front Suspension			0,00	1	0,00	0,00	0,00	0,00	0,00	100
	71001	AA		Lower A-Arm		23,34	2	6,79	14,29	1,59	0,67	46,68	101
	71002	AA		Upper A-Arm		23,16	2	6,61	14,29	1,59	0,67	46,32	102
	71003	AA		Push Rod		17,99	2	5,67	12,32	0,00	0,00	35,98	103
	71004	AA		Bell Crank		24,80	2	15,47	6,26	3,07	0,00	49,61	104
	71005	AA		Spring		25,06	2	25,00	0,06	0,00	0,00	50,12	105
	71006	AA		Damper		239,24	2	235,00	3,00	1,24	0,00	478,48	106
	A7200	AA	Rear Suspension			0,00	1	0,00	0,00	0,00	0,00	0,00	107
	72001	AA		Lower A-Arm		23,43	2	6,88	14,29	1,59	0,67	46,86	108
	72002	AA		Upper A-Arm		23,14	2	6,59	14,29	1,59	0,67	46,27	109
	72003	AA		Pull Rod		18,32	2	5,67	12,32	0,00	0,33	36,65	110
	72004	AA		Bell Crank		24,80	2	15,47	6,26	3,07	0,00	49,61	111
	72005	AA		Spring		25,06	2	25,00	0,06	0,00	0,00	50,12	112
	72006	AA		Damper		239,24	2	235,00	3,00	1,24	0,00	478,48	113
	72007	AA		Tracking Link		17,95	2	5,30	12,32	0,00	0,33	35,89	114
	A7300	AA	Upright Assembly			0,00	1	0,00	0,00	0,00	0,00	0,00	115
	73001	AA		Front Upright		110,48	2	29,88	80,60	0,00	0,00	220,96	116
	73002	AA		Rear Upright		105,21	2	25,61	79,60	0,00	0,00	210,42	117
	A7400	AA	Front Anti-Roll Bar Asmbly.			0,00		0,00	0,00	0,00	0,00	0,00	118
	74001	AA		Anti-Roll Bar		4,43	1	0,74	3,02	0,00	0,67	4,43	119
	74002	AA		Blades		3,30	2	1,60	1,70	0,00	0,00	6,60	120
	74003	AA		Mounts		24,42	2	19,97	3,87	0,58	0,00	48,84	121
	A7500	AA	Rear Anti-Roll Bar Asmbly.			0,00	1	0,00	0,00	0,00	0,00	0,00	122
	75001	AA		Anti-Roll Bar		4,43	1	0,74	3,02	0,00	0,67	4,43	123
	75002	AA		Blades		4,06	2	2,21	1,85	0,00	0,00	8,11	124
	75003	AA		Mounts		24,44	2	19,97	3,89	0,58	0,00	48,88	125
Suspension				Area Total				1388,84	574,58	32,28	8,03	2003,73	

Area of Commodity	Asm/Prt #	Rev. Lvl.	Asm	Component	Description	Unit Cost	Quantity	Material Cost	Process Cost	Fastener Cost	Tooling Cost	Total Cost	Details Page Number
Wheels & Tires	A8100	AA	Front Wheel Assembly			5,82	2	0,00	2,62	3,20	0,00	11,64	126
	81001	AA		Hub	Aluminium	32,37	2	20,58	9,71	2,08	0,00	64,75	127
	81002	AA		Wheel	13"	96,50	2	96,50	0,00	0,00	0,00	193,00	128
	81003	AA		Tire	20 x 7.2 mm	100,00	2	100,00	0,00	0,00	0,00	200,00	129
	81004	AA		Valve Stem		1,00	2	1,00	0,00	0,00	0,00	2,00	130
	81005	AA		Wheel Bearing		26,84	2	26,71	0,13	0,00	0,00	53,68	131
	A8200	AA	Rear Wheel Assembly			5,82	2	0,00	2,62	3,20	0,00	11,64	132
	82001	AA		Hub	Aluminium	32,37	2	20,58	9,71	2,08	0,00	64,75	133
	82002	AA		Wheel	13"	96,50	2	96,50	0,00	0,00	0,00	193,00	134
	82003	AA		Tire	20 x 7.2 mm	100,00	2	100,00	0,00	0,00	0,00	200,00	135
	82004	AA		Valve Stem		1,00	2	1,00	0,00	0,00	0,00	2,00	136
	82005	AA		Wheel Bearing		26,84	2	26,71	0,13	0,00	0,00	53,68	137
Wheels & Tires				Area Total				979,17	49,58	21,12	0,00	1050,13	

Area of Commodity	Asm/Prt #	Rev. Lvl.	Asm	Component	Description	Unit Cost	Quantity	Material Cost	Process Cost	Fastener Cost	Tooling Cost	Total Cost	Details Page Number
Vehicle Total				Total				10.053,90	2.359,44	106,13	75,34	12.595,07	

University University of Seville
System Brakes
Assembly FRONT BRAKE ASM.
P/N Base A1100
Suffix AA
Details

Car # 11

Asm Cost \$ 236,13
Qty 1
Extended Cost \$ 236,13

ItemOrder	Part	Part Cost	Quantity	Sub Total
1	Front Brake Disc	\$ 14,55	2	\$ 29,101
2	Front Brake Pad	\$ 23,68	4	\$ 94,707
3	Front Caliper	\$ 56,16	2	\$ 112,320
Sub Total				\$ 236,128

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
													\$ -
Sub Total												\$ -	

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total
								\$ -
Sub Total								0

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total
									\$ -
Sub Total									\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	Fract. Incl.	Sub Total
Sub Total								0

University University of Seville
System Brakes
Assembly Front Brake Asmb.
Part FRONT BRAKE DISC
P/N Base 11001
Suffix AA
Details Cast iron. Hub-mounted

Car # 1

Part Cost \$ 14,55

Qty 2

Extended Cost \$ 29,10

ItemOrder	Material	Use	UnitCost	Outer D	Unit1	Inner D	Unit2	Area Name	Area /m2	Length	Density	Quantity	Sub Total
	Iron	Disc Material	\$ 1,00	267	mm	132	mm	Circle	0,06	5	7800	1	\$ 2,18
												Sub Total	\$ 2,184

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
1	Machining Setup, Install and remove	Set up drill	\$ 1,30	per disc	1			\$ 1,30	
2	Drilled holes < 25.4 mm dia.	Holes for fastening disc to hub	\$ 0,35	per hole	6		2,5	\$ 5,25	
3	Machining Setup, Install and remove	Set up cutter	\$ 1,30	per disc	1			\$ 1,30	
4	Waterjet Cut	Cut central circle	\$ 0,01	cm	41,47		2,5	\$ 1,04	
5	Power Tool <= 25.4 mm	Fasten disc to hub	\$ 0,25	unit	6			\$ 1,50	
								Sub Total	\$ 10,39

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
	Bolt, Grade 8.8 (SAE 5)	Fasten disc to hub	0,33	12,7	mm	25,4	mm	6	\$ 1,98	
									Sub Total	\$ 1,98

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
								Sub Total	0

University University of Seville
System Brakes
Assembly Front Brake Asmb.
Part FRONT BRAKE PAD
P/N Base 11002
Suffix AA
Details

Car # 1

Part Cost \$ 23,68
Qty 4
Extended Cost \$ 94,71

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area (mm^2)	Length (mm)	Density	Quantity	Sub Total
	Brake Pad, Iron or Steel Rotor	Brake Pad	\$ 0,0002	70,15	mm	42,9	mm	Pad Area	2.738	43,00		1,00	\$ 23,55
												Sub Total	\$ 23,547

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
	Assemble, 1 kg, Line-on-Line	Fit Pad in Caliper	\$ 0,13	unit	1			\$ 0,13	
								Sub Total	\$ 0,13

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
									\$ -	
									Sub Total	\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
								Sub Total	0

University University of Seville
System Brakes
Assembly Front Brake Assembly
Part FRONT CALIPER
P/N Base 11003
Suffix AA
Details

Car # 1

Part Cost \$ 56,16

Qty 2

Extended Cost \$ 112,32

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
	Brake Caliper, Honda, 45150-HP1-006		\$ 55,00									1,00E+00	\$ 55,00
												Sub Total	\$ 55,000

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
	Power Tool <= 25.4 mm	Fasten caliper to upright	\$ 0,25		2			\$ 0,50	
								Sub Total	\$ 0,50

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
	Bolt, Grade 8.8 (SAE 5)	Fasten caliper to upright	\$ 0,33	12,7	mm	25,4	mm	2	\$ 0,66	
									Sub Total	\$ 0,66

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncid	Sub Total	
								Sub Total	0

University University of Seville
System Brakes
Assembly REAR BRAKE ASMB.
P/N Base A1200
Suffix AA
Details

Car # 1

Asm Cost \$ 140,47
Qty 1
Extended Cost \$ 140,47

ItemOrder	Part	Part Cost	Quantity	Sub Total
	Rear Brake Disc	\$ 13,57	2	\$ 27,133
	Rear Brake Pad	\$ 12,75	4	\$ 51,019
	Rear Caliper	\$ 31,16	2	\$ 62,320
			Sub Total	\$ 140,472

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
													\$ -
												Sub Total	\$ -

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total
								\$ -
							Sub Total	0

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
									\$ -	
									Sub Total	\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FractionIncluded	Sub Total
							Sub Total	0

University University of Seville
System Brakes
Assembly Rear Brake Asmb.
Part REAR BRAKE DISC
P/N Base 11001
Suffix AA
Details Cast iron. Hub-mounted

Part Cost \$ 13,57
Qty 2
Extended Cost \$ 27,13

ItemOrder	Material	Use	UnitCost	Outer D	Unit1	Inner D	Unit2	Area Name	Area /m2	Length	Density	Quantity	Sub Total
	Iron	Disc Material	\$ 1,00	220	mm	96	mm	Circle	0,04	5	7800	1	\$ 1,48
												Sub Total	\$ 1,483

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
1	Machining Setup, Install and remove	Set up drill	\$ 1,30	per disc	1			\$ 1,30	
2	Drilled holes < 25.4 mm dia.	Holes for fastening disc to hub	\$ 0,35	per hole	6		2,5	\$ 5,25	
3	Machining Setup, Install and remove	Set up cutter	\$ 1,30	per disc	1			\$ 1,30	
4	Waterjet Cut	Cut central circle	\$ 0,01	cm	30,16		2,5	\$ 0,75	
5	Power Tool <= 25.4 mm	Fasten disc to hub	\$ 0,25	unit	6			\$ 1,50	
								Sub Total	\$ 10,10

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
	Bolt, Grade 8.8 (SAE 5)	Fasten disc to hub	\$ 0,33	12,7	mm	25,4	mm	6	\$ 1,98	
									Sub Total	\$ 1,98

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
								Sub Total	0

University University of Seville
System Brakes
Assembly Rear Brake Asmb.
Part REAR BRAKE PAD
P/N Base 12002
Suffix AA
Details

Car # 1

Part Cost \$ 12,75
Qty 4
Extended Cost \$ 51,02

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
	Brake Pad, Iron or Steel Rotor	Brake Pad	\$ 0,0002	39,7	mm	44	mm	Pad area	1.468	43,00		1,00	\$ 12,62
												Sub Total	\$ 12,625

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
	Assemble, 1 kg, Line-on-Line	Fit pad in caliper	\$ 0,13	per pad	1			\$ 0,13	
								Sub Total	\$ 0,13

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
									\$ -	
									Sub Total	\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
								Sub Total	0

University University of Seville
System Brakes
Assembly Rear Brake Asmb.
Part REAR CALIPER
P/N Base 12003
Suffix AA
Details

Car # 1

Part Cost \$ 31,16
Qty 2
Extended Cost \$ 62,32

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
10	Brake Caliper, Honda, 45150-HN6-006		\$ 30,00									1	\$ 30,00
												Sub Total	\$ 30,00

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
	Power Tool <= 25.4 mm	Fasten caliper to upright	\$ 0,25		2			\$ 0,50	
								Sub Total	\$ 0,50

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
	Bolt, Grade 8.8 (SAE 5)	Fasten caliper to upright	0,33	12,7	mm	25,4	mm	2	\$ 0,66	
									Sub Total	\$ 0,66

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
								Sub Total	0

University	University of Seville
System	Brakes
Assembly	BRAKE CIRCUIT
P/N Base	A1300
Suffix	AA
Details	

Car # 1

Asm Cost	\$ 245,91
Qty	1
Extended Cost	\$ 245,91

ItemOrder	Part	Part Cost	Quantity	Sub Total
1	Master Cylinder	\$ 26,68	2	\$ 53,360
2	Fluid Reservoir	\$ 5,00	2	\$ 10,000
3	Balance Bar	\$ 29,28	1	\$ 29,280
4	Brake Bias Adjuster	\$ -	1	\$ -
5	Tubing & Fittings	\$ 150,02	1	\$ 150,020
Sub Total				\$ 242,660

This part included in part 33001 Pedals Assembly

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
	Fluid, Oil		\$ 0,75									1,00	\$ 0,75
Sub Total												\$ 0,75	

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total
	Brake Bleed - Per Bleeder Valve		\$ 2,50	unit	1			\$ 2,50
Sub Total								\$ 2,50

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total
									\$ -
Sub Total									\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FractionIncluded	Sub Total
Sub Total								\$ -

University University of Seville
System Brakes
Assembly Brake Circuit
Part MASTER CYLINDER
P/N Base 13001
Suffix AA
Details

Car # 1

Part Cost \$ 26,68
Qty 2
Extended Cost \$ 53,36

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
10	Master Cylinder, Brembo, 10.4776.20	Pump brake fluid	\$ 26,00									1	\$ 26,00
												Sub Total	\$ 26,000

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
1	Assemble, 1 kg, Loose	Place M. Cyl. in joint	\$ 0,06	unit	1			\$ 0,06	
2	Power Tool <= 25.4 mm	Tighten bolt	\$ 0,25	unit	1			\$ 0,25	
								Sub Total	\$ 0,31

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
	Bolt, Grade 10.9 (SAE 8)		0,37	12,7	mm	20	mm	1	\$ 0,37	
									Sub Total	\$ 0,37

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
								Sub Total	\$ -

University University of Seville
System Brakes
Assembly Brake Circuit
Part FLUID RESERVOIR
P/N Base 13002
Suffix AA
Details

Car # 1

Part Cost \$ 5,00
Qty 2
Extended Cost \$ 10,00

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
	Hydraulic Fluid Reservoir, Remote (Plastic)	Brake fluid	\$ 5,00									1,00E+00	\$ 5,00
												Sub Total	\$ 5,000

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
								\$ -	
								Sub Total	\$ -

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
									\$ -	
									\$ -	
									Sub Total	\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
								Sub Total	0

University University of Seville
System Brakes
Assembly Brake Circuit
Part BALANCE BAR
P/N Base 13003
Suffix AA
Details

Car # 1

Part Cost \$ 29,28
Qty 2
Extended Cost \$ 58,56

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
	Balance Bar, Timms Autoteile, 013 901	Front and rear brake distrib.	\$ 28,40									1	\$ 28,40
												Sub Total	\$ 28,400

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
	Assemble, 1 kg, Line-on-Line	Place balance bar	\$ 0,13		1			\$ 0,13	
	Ratchet <= 25.4 mm	Fasten balance bar	\$ 0,75		1			\$ 0,75	
								Sub Total	\$ 0,88

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
									\$ -	
									Sub Total	\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
								Sub Total	\$ -

University University of Seville
System Brakes
Assembly Brake Circuit
Part BRAKE BIAS ADJUSTER
P/N Base 13004
Suffix AA
Details This part included in part 33001 Pedals Assembly

Car # 1

Part Cost \$ -
Qty 1
Extended Cost \$ -

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
													\$ -
												Sub Total	\$ -

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total
								\$ -
							Sub Total	\$ -

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total
									\$ -
								Sub Total	\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total
							Sub Total	\$ -

University University of Seville
System Brakes
Assembly Brake Circuit
Part TUBING & FITTINGS
P/N Base 13005
Suffix AA
Details

Car # 1

Part Cost \$ 150,02
Qty 2
Extended Cost \$ 300,04

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
1	Hose, High Pressure, Stainless Steel Braided Outer	Tubing	\$ 34,34	15	mm (D)					2,00			\$ 68,68
2	Banjo Bolt, Aluminum	Connect tubes with calipers and M. Cyl.	\$ 6,80	10	mm (L)							6	\$ 40,80
3	Crush Washer	Seal banjo bolt connections	\$ 0,53	15	mm (ID)							12	\$ 6,30
4	Adapter, L.P., Union Tee, Aluminum, Anodized	Front and rear bifurcations	\$ 7,31	15	mm (D)							2	\$ 14,62
												Sub Total	\$ 130,400

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
1	Assemble, 1 kg, Loose	Line up banjo bolts	\$ 0,06	unit	6			\$ 0,36	
2	Wrench, <= 25.4 mm	Tighten all fittings	\$ 1,50	unit	12			\$ 18,00	
								Sub Total	\$ 18,36

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total
	Hose Clamp, Spring Steel	Secure lines	\$ 0,21	15	mm			6	\$ 1,26
								Sub Total	\$ 1,26

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
								Sub Total	0

University University of Seville
System Engine & Drivetrain
Assembly FUEL ASMB.
P/N Base A2100
Suffix AA
Details

Car # 1

Asm Cost \$ 301,09
Qty 1
Extended Cost \$ 301,09

ItemOrder	Part	Part Cost	Quantity	Sub Total
1	Fuel Tank	\$ 25,17	1	\$ 25,17
2	Fuel Filter	\$ 8,00	1	\$ 8,00
3	Fuel Pump	\$ 120,00	1	\$ 120,00
4	Fuel Check Valve	\$ 8,00	1	\$ 8,00
5	Fuel Pressure Regulator	\$ 15,00	1	\$ 15,00
6	Fuel Rail	\$ 4,72	1	\$ 4,72
7	Fuel Injector	\$ 30,00	4	\$ 120,00
8	Fuel Lines	\$ 0,19	1	\$ 0,19
Sub Total				\$ 301,09

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
													\$ -
Sub Total												\$ -	

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total
								\$ -
Sub Total								0

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total
									\$ -
Sub Total									\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FractionIncluded	Sub Total
								\$ -
Sub Total								\$ -

University University of Seville
System Engine & Drivetrain
Assembly Fuel Assembly
Part FUEL TANK
P/N Base 21001
Suffix AA
Details

Car # 1

Part Cost \$ 25,17
Qty 1
Extended Cost \$ 25,17

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area (m2)	Length	Density	Quantity	Sub Total
	Aluminum, Normal	Tank wall	\$ 4,20	22,2	cm	69,74	cm	rectangle	0,15	0,003	2.768,30	1	\$ 5,40
	Aluminum, Normal	Tank caps	\$ 4,20	22,6	cm			circle	0,04	0,003	2.768,30	2	\$ 2,80
												Sub Total	\$ 8,199

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
	Weld	Form the tank	\$ 0,15	cm	91,12			\$ 13,67	
								Sub Total	\$ 13,67

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
1	Galvanized Steel Loop Straps, Rubber coated	Secure tank	\$ 0,98	22,6	cm			2	\$ 1,97	
2	Bolt, Grade 6.8 (SAE 3)	Secure tank	\$ 0,33	12,7	mm	35	mm	2	\$ 0,66	
3	Nut, Grade 6.8 (SAE 3)	Secure tank	\$ 0,09	12,7	mm			2	\$ 0,18	
									Sub Total	\$ 2,81

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
	Welding Fixture	Weld tank	\$ 500,00	point	3	3000	1	\$ 0,50	
								Sub Total	\$ 0,50

University University of Seville
System Engine & Drivetrain
Assembly Fuel Assembly
Part FUEL FILTER
P/N Base 21002
Suffix AA
Details

Car # 1

Part Cost \$ 8,00
Qty 1
Extended Cost \$ 8,00

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
	Fuel Filter		\$ 8,00									1,00E+00	\$ 8,00
												Sub Total	\$ 8,000

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
								\$ -	
								Sub Total	\$ -

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
									\$ -	
									Sub Total	\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
								Sub Total	0

University University of Seville
System Engine & Drivetrain
Assembly Fuel Assembly
Part FUEL PUMP
P/N Base 21003
Suffix AA
Details

Car # 1

Part Cost \$ 120,00
Qty 1
Extended Cost \$ 120,00

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
	Fuel Pump, Direct Injection	Feed Fuel Rail	\$ 120,00									1,00E+00	\$ 120,00
												Sub Total	\$ 120,000

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
								\$ -	
								Sub Total	\$ -

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
									\$ -	
									Sub Total	\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
								Sub Total	\$ -

University University of Seville
System Engine & Drivetrain
Assembly Fuel Assembly
Part FUEL CHECK VALVE
P/N Base 21004
Suffix AA
Details

Car # 1

Part Cost \$ 8,00
Qty 1
Extended Cost \$ 8,00

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
	Fuel Check Valve	Prevent fuel from flowing back	\$ 8,00									1,00E+00	\$ 8,00
												Sub Total	\$ 8,000

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total
								\$ -
							Sub Total	\$ -

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total
									\$ -
								Sub Total	\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total
							Sub Total	0

University University of Seville
System Engine & Drivetrain
Assembly Fuel Assembly
Part FUEL PRESSURE REGULATOR
P/N Base 21005
Suffix AA
Details

Car # 1

Part Cost \$ 15,00
Qty 1
Extended Cost \$ 15,00

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
	Fuel Pressure Regulator, Gasoline		\$ 15,00									1,00E+00	\$ 15,00
												Sub Total	\$ 15,000

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
								\$ -	
								Sub Total	\$ -

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
									\$ -	
									Sub Total	\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
								Sub Total	\$ -

University University of Seville
System Engine & Drivetrain
Assembly Fuel Assembly
Part FUEL RAIL
P/N Base 21006
Suffix AA
Details

Car # 1

Part Cost \$ 4,72
Qty 1
Extended Cost \$ 4,72

ItemOrder	Material	Use	UnitCost	Side	Unit1	Thickness	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
	Steel, Stainless	Fuel Rail	\$ 2,25	30	mm	2	mm	square tube	0,000224	350,00	7.850,00	1	\$ 1,38
Sub Total													\$ 1,385

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total
	Machine Setup, Install and Remove	Prepare drill	\$ 1,30	unit	1			\$ 1,30
	Drilled holes < 25.4 mm dia.	Drill injector holes	\$ 0,35	hole	4			\$ 1,40
	Weld	End caps	\$ 0,15	joining	2			\$ 0,30
Sub Total								\$ 3,00

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total
									\$ -
Sub Total									\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total
	Welding Fixture	End caps	\$ 500,00	point	2	3000	1	\$ 0,33
Sub Total								\$ 0,33

University University of Seville
System Engine & Drivetrain
Assembly Fuel Assembly
Part FUEL INJECTOR
P/N Base 21007
Suffix AA
Details

Car # 1

Part Cost \$ 30,00

Qty 4

Extended Cost \$ 120,00

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
	Fuel Injector, Direct Injection	Dosify fuel in cylinder	\$ 30,00									1	\$ 30,00
												Sub Total	\$ 30,000

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
								\$ -	
								Sub Total	\$ -

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
									\$ -	
									Sub Total	\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
								Sub Total	\$ -

University University of Seville
System Engine & Drivetrain
Assembly Fuel Assembly
Part FUEL LINES
P/N Base 21008
Suffix AA
Details All Hard Lines

Car # 1

Part Cost \$ 0,19
Qty 1
Extended Cost \$ 0,19

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area /m2	Length	Density	Quantity	Sub Total
	Tubing, Steel	Fuel circuit	\$ 2,25	8	mm	1	mm	round tube	2,20E-05	500,00	7.850,00	1	\$ 0,19
Sub Total													\$ 0,194

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total
								\$ -
Sub Total								\$ -

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total
									\$ -
Sub Total									\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total
Sub Total								0

University University of Seville
System Engine & Drivetrain
Assembly AIR INTAKE
P/N Base A2200
Suffix AA
Details

Car # 1

Asm Cost \$ 74,94

Qty 1

Extended Cost \$ 74,94

ItemOrder	Part	Part Cost	Quantity	Sub Total
1	Air Filter	\$ 15,49	1	\$ 15,491
2	Intake Manifold	\$ 7,93	1	\$ 7,931
3	Throttle Body	\$ 44,67	1	\$ 44,671
4	Intake Gasket	\$ 3,06	1	\$ 3,056
Sub Total				\$ 71,150

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
	Seal, O-Ring, Elastomer		\$ 0,05	30	mm							8,00E+00	\$ 0,40
Sub Total												\$ 0,400	

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total
1	Assemble, 1 kg, Line-in-Line	Place Gasket	\$ 0,13	unit	1			\$ 0,13
2	Assemble, 1 kg, Line-in-Line	Fit Manifold	\$ 0,13	unit	1			\$ 0,13
3	Power Tool <= 6.35 mm	Tighten intake bolt	\$ 0,25	unit	8			\$ 2,00
4	Assemble, 1 kg, Line-in-Line	Attach throttle cable	\$ 0,13	unit	1			\$ 0,13
5	Safety Wire, Install	Safety throttle cable	\$ 0,60	unit	1			\$ 0,60
Sub Total								2,99

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total
1	Bolt, Grade 8.8 (SAE 5)	fastening to engine	\$ 0,02	6	mm			8	\$ 0,16
2	Washer, Grade 8.8 (SAE 5)	fastening to engine	\$ 0,03	6	mm			8	\$ 0,24
3	Safety Wire	secure throttle cable	\$ -			12,5	mm		\$ -
Sub Total									\$ 0,40

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	Frac. Incl.	Sub Total
Sub Total								0

University University of Seville
System Engine & Drivetrain
Assembly Air Intake
Part AIR FILTER
P/N Base 22001
Suffix AA
Details

Car # 1

Part Cost \$ 15,49

Qty 1

Extended Cost \$ 15,49

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
	Air Filter	Retain debris	\$ 0,15	94,14								1	\$ 14,12
												Sub Total	\$ 14,121

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
1	Assemble, 1 kg, Line-in-Line	Align filter and intake	\$ 0,13	unit	1			\$ 0,13	
2	Ratchet <= 6.35 mm	Tighten clamp	\$ 0,50	unit	1			\$ 0,50	
								Sub Total	\$ 0,63

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
	Hose Clamp, Worm Drive	Fasten air filter	0,74	60	mm			1	\$ 0,74	
									Sub Total	\$ 0,74

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
								Sub Total	\$ -

University University of Seville
System Engine & Drivetrain
Assembly Air Intake
Part INTAKE MANIFOLD
P/N Base 22002
Suffix AA
Details Polycarbonate.

Car # 1

Part Cost \$ 7,93
Qty 1
Extended Cost \$ 7,93

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
	Plastic, Polycarbonate		\$ 3,30	0,76	kg							1	\$ 2,51
												Sub Total	\$ 2,508

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
	Plastic injection molding		\$ 2,75	kg	0,76			\$ 2,09	
								Sub Total	\$ 2,09

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
									\$ -	
									Sub Total	\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
	Plastic injection molding - Die		\$ 10.000,00	die	1	3000	1	\$ 3,33	
								Sub Total	\$ 3,33

University University of Seville
System Engine & Drivetrain
Assembly Air Intake
Part THROTTLE BODY
P/N Base 22003
Suffix AA
Details

Car # 1

Part Cost \$ 44,67

Qty 1

Extended Cost \$ 44,67

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
1	Aluminum, Premium	Throttle body	\$ 4,20	0,96	kg							1	\$ 4,03
2	Clevis	connect to body	\$ 0,27	6,35	mm							1	\$ 0,27
3	Cable Adjuster	Adjustment of throttle cable	\$ 1,00									1	\$ 1,00
4	Cable, Push/Pull	Sends motion to throttle	\$ 35,00									1	\$ 35,00
												Sub Total	\$ 40,302

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
1	Machining Setup, Install and remove	Lathe	\$ 1,30	unit	1			\$ 1,30	
2	Machining	Turn down throttle	\$ 0,04	cm3	53,98			\$ 2,16	
3	Drilled holes < 25.4 mm dia.	Open center	\$ 0,35	unit	1			\$ 0,35	
4	Ratchet <= 6.35 mm	tighten bolt	\$ 0,50	unit	1			\$ 0,50	
								Sub Total	\$ 4,31

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
1	Bolt, Grade 8.8 (SAE 5)	bolt clevis	0,03	6,35	mm	6,35	mm	1	\$ 0,03	
2	Nut, Grade 8.8 (SAE 5)	bolt clevis	0,03	6,35	mm			1	\$ 0,03	
									Sub Total	\$ 0,06

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
								Sub Total	\$ -

University University of Seville
System Engine & Drivetrain
Assembly Air Intake
Part INTAKE GASKET
P/N Base 22004
Suffix AA
Details

Car # 11

Part Cost \$ 3,06
Qty 1
Extended Cost \$ 3,06

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
	Plastic, ABS	Gasket	\$ 3,30									0,089	\$ 0,29
												Sub Total	\$ 0,294

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
1	Machine Setup, install and Remove	machine plastic	\$ 1,30	unit	1			\$ 1,30	
2	Machining	machine plastic	\$ 0,04	cm3	3,126		0,5	\$ 0,06	
3	Drilled holes < 25.4 mm dia.	attachment holes	\$ 0,35	hole	8		0,5	\$ 1,40	
								Sub Total	\$ 2,76

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
									\$ -	
									Sub Total	\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
								Sub Total	\$ -

University University of Seville
System Engine & Drivetrain
Assembly ENGINE ASMB.
P/N Base A2300
Suffix AA
Details

Car # 1

Asm Cost \$ 1.509,31
Qty 1
Extended Cost \$ 1.509,31

ItemOrder	Part	Part Cost	Quantity	Sub Total
1	Engine, Suzuki GSX-R600 k4	\$ 1.509,31	1	\$ 1.509,305
			Sub Total	\$ 1.509,305

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
													\$ -
												Sub Total	\$ -

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
								\$ -	
								Sub Total	\$ -

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
									\$ -	
									Sub Total	\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	Frac. Incl.	Sub Total	
								Sub Total	\$ -

University University of Seville
System Engine & Drivetrain
Assembly Engine Asmb.
Part ENGINE
P/N Base 23001
Suffix AA
Details Suzuki GSX-R600 k4

Car # 1

Part Cost \$ 1.509,31

Qty 1

Extended Cost \$ 1.509,31

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
1	Engine and Transmission, Ultra High Performance (>10 HP/100 cc)		\$ 2,50	599	cm3							1	\$ 1.497,50
2	Spark Plug Coil	Ignition	\$ -									1	\$ -
3	Spark Plug Wire	Ignition	\$ -									1	\$ -
4	Oil Filter	Clean oil	\$ -									1	\$ -
5	Fluid, Oil	Lubrication	\$ 0,75									3,00	\$ 2,25
												Sub Total	\$ 1.499,750

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
1	Assemble, >20 kg, Loose	Mount engine	\$ 1,88	unit	1			\$ 1,88	
2	Power Tool <= 25.4 mm	Tighten engine bolts	\$ 0,25	unit	6			\$ 1,50	
3	Ratchet <= 25.4 mm	Tighten spark plugs	\$ 0,75	unit	4			\$ 3,00	
								Sub Total	\$ 6,38

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
1	Bolt, Grade 10.9 (SAE 8)	Fasten to frame	\$ 0,30	12,7	mm	12,5	mm	6	\$ 1,80	
2	Nut, Grade 10.9 (SAE 8)	Fasten to frame	\$ 0,21	12,7	mm			6	\$ 1,26	
3	Washer, Grade 10.9 (SAE 8)	Fasten to frame	\$ 0,02	12,7	mm			6	\$ 0,12	
									Sub Total	\$ 3,18

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
								Sub Total	0

University University of Seville
System Engine & Drivetrain
Assembly COOLING ASMB.
P/N Base A2400
Suffix AA
Details

Car # 1

Asm Cost \$ 124,96
Qty 1
Extended Cost \$ 124,96

ItemOrder	Part	Part Cost	Quantity	Sub Total
1	Radiator	\$ 79,28	1	\$ 79,282
2	Coolant Circuit	\$ 45,67	1	\$ 45,674
			Sub Total	\$ 124,957

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
													\$ -
												Sub Total	\$ -

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
								\$ -	
								Sub Total	\$ -

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
									\$ -	
									Sub Total	\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FractionIncluded	Sub Total	
								Sub Total	\$ -

University University of Seville
System Engine & Drivetrain
Assembly Cooling
Part RADIATOR
P/N Base 24001
Suffix AA
Details

Car # 11

Part Cost \$ 79,28
Qty 1
Extended Cost \$ 79,28

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Thick.	Density	Quantity	Sub Total
10	Heat Exchanger, Air-to-Liquid	Dissipate heat	\$ 0,00	54	cm	60	cm	Front Area	3.240	3,00		1	\$ 34,02
20	Heat Exchanger Fan	Force air through radiator	\$ 30,00									1	\$ 30,00
30	Aluminium, Normal	Fan Shroud	\$ 4,20	61	cm	67	cm	Rectangle	4.087	0,20	2.768,30	1	\$ 9,50
												Sub Total	\$ 64,020

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
1	Machining Setup, Install and remove	Set up cutting machine for fan shroud	\$ 1,30	unit	1			\$ 1,30	
2	Waterjet Cut	Circular hole for fan	\$ 0,01	cm	94,25			\$ 0,94	
3	Machining Setup, Install and remove	Set up drill	\$ 1,30	unit	1			\$ 1,30	
4	Drilled holes < 25.4 mm dia.	Holes for bolts	\$ 0,35	hole	8			\$ 2,80	
5	Sheet metal Bend	Bend sides of shroud	\$ 0,25	bend	6			\$ 1,50	
6	Power Tool <= 25.4 mm	Fasten parts together	\$ 0,25	bolt	14			\$ 3,50	
7	Reaction Tool	Fasten parts together	\$ 0,25	bolt	14			\$ 3,50	
								Sub Total	\$ 14,84

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
1	Bolt, Aluminium	Fasten radiator to shroud	\$ 0,02	3,5	mm	10	mm	6	\$ 0,12	
2	Bolt, Aluminium	Fasten fan to shroud	\$ 0,02	3,5	mm	8	mm	4	\$ 0,08	
3	Bolt, Aluminium	Fasten shroud to frame	\$ 0,02	3,5	mm	30	mm	4	\$ 0,08	
4	Nut, Grade 6.8 (SAE 3)	All bolts	\$ 0,01	3,5	mm			14	\$ 0,14	
									Sub Total	\$ 0,42

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
								Sub Total	\$ -

University University of Seville
System Engine & Drivetrain
Assembly Cooling
Part COOLANT CIRCUIT
P/N Base 24002
Suffix AA
Details

Car # 1

Part Cost \$ 45,67
Qty 1
Extended Cost \$ 45,67

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
1	Hose, Rubber	Radiator Inlet	\$ 0,18	63,5	mm					1,24		1	\$ 0,22
2	Hose, Rubber	Radiator Outlet and By-pass Line	\$ 0,18	25,4	mm					0,84		1	\$ 0,15
3	Coolant Pump, Ext. Electric	Coolant circulation	\$ 20,00									1	\$ 20,00
4	Thermostat	Coolant temp. control	\$ 5,00									1	\$ 5,00
5	Filler Cap	Coolant press. control	\$ 3,00									1	\$ 3,00
6	Overflow Bottle, Plastic	Coolant expansion	\$ 5,00									1	\$ 5,00
												Sub Total	\$ 33,374

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
1	Cut (scissors, knife)	Cut rubber hoses	\$ 0,06	cm	10			\$ 0,60	
2	Assemble, 1 kg, Line-in-Line	Fit hoses in parts	\$ 0,13		10			\$ 1,30	
3	Screwdriver, >1 Turn	Tighten clamps	\$ 0,50		10			\$ 5,00	
								Sub Total	\$ 6,90

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
1	Hose Clamp, Miniature Bolt	Fasten Rubber Tubing	\$ 0,75	63,5	mm			4	\$ 3,00	
2	Hose Clamp, Miniature Bolt	Fasten Rubber Tubing	\$ 0,60	25,4	mm			4	\$ 2,40	
									Sub Total	\$ 5,40

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
								Sub Total	\$ -

University University of Seville
System Engine & Drivetrain
Assembly EXHAUST
P/N Base A2500
Suffix AA
Details

Car # 1

Asm Cost \$ 140,06

Qty 1

Extended Cost \$ 140,06

ItemOrder	Part	Part Cost	Quantity	Sub Total
1	Header Flanges	\$ 4,12	4	\$ 16,469
2	Headers	\$ 8,53	4	\$ 34,121
3	Exhaust Tubing	\$ 2,59	1	\$ 2,589
4	Collector, 1st Stage	\$ 14,29	2	\$ 28,577
5	Collector, 2nd Stage	\$ 15,86	1	\$ 15,856
6	Muffler	\$ 42,44	1	\$ 42,445
			Sub Total	\$ 140,056

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
													\$ -
												Sub Total	\$ -

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total
								\$ -
							Sub Total	\$ -

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total
									\$ -
								Sub Total	\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FractionIncluded	Sub Total
							Sub Total	\$ -

University University of Seville
System Engine & Drivetrain
Assembly Exhaust
Part HEADER FLANGE
P/N Base 25001
Suffix AA
Details

Car # 1

Part Cost \$ 4,12
Qty 4
Extended Cost \$ 16,47

ItemOrder	Material	Use	UnitCost	Outer D	Unit1	Thickness	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
	Tubing, Stainless Steel		\$ 2,25	46	mm	3	mm	round tube	4,05E-04	0,008	7.850,00	1	\$ 0,06
												Sub Total	\$ 0,057

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
1	Machining Setup, Install and remove	cut flanges	\$ 1,30	unit	1			\$ 1,30	
2	Tube cut	cut flanges	\$ 0,15	cm	18,4			\$ 2,76	
								Sub Total	\$ 4,06

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
									\$ -	
									Sub Total	\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
								Sub Total	0

University University of Seville
System Engine & Drivetrain
Assembly Exhaust
Part HEADERS
P/N Base 25002
Suffix AA
Details

Car # 1

Part Cost \$ 8,53
Qty 4
Extended Cost \$ 34,12

ItemOrder	Material	Use	UnitCost	Outer D	Unit1	Thickness	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
	Tubing, Stainless Steel		\$ 2,25	40	mm	2	mm	round tube	2,39E-04	0,60	7.850,00	1,00E+00	\$ 2,53
												Sub Total	\$ 2,530

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
1	Tube bends		\$ 0,75	bend	8			\$ 6,00	
								Sub Total	\$ 6,00

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
									\$ -	
									Sub Total	\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	Frac. Incl.	Sub Total	
								Sub Total	\$ -

University University of Seville
System Engine & Drivetrain
Assembly Exhaust
Part EXHAUST TUBING
P/N Base 25003
Suffix AA
Details Two stages of tubing

Car # 1

Part Cost \$ 2,59
Qty 1
Extended Cost \$ 2,59

ItemOrder	Material	Use	UnitCost	Outer D	Unit	Thickness	Unit	Area Name	Area	Length	Density	Quantity	Sub Total
1	Tubing, Stainless Steel	1st stage	\$ 2,25	47	mm	2	mm	round tube	2,83E-04	0,18	7.850,00	2	\$ 1,80
2	Tubing, Stainless Steel	2nd stage	\$ 2,25	63	mm	1	mm	round tube	1,95E-04	0,23	7.850,00	1	\$ 0,79
												Sub Total	\$ 2,589

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
								\$ -	
								Sub Total	\$ -

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
									\$ -	
									Sub Total	\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
								Sub Total	0

University University of Seville
System Engine & Drivetrain
Assembly Exhaust
Part COLLECTOR, 1ST STAGE
P/N Base
Suffix AA
Details

Car # 1

Part Cost \$ 14,29

Qty 2

Extended Cost \$ 28,58

ItemOrder	Material	Use	UnitCost	Outer D	Unit1	Thickness	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
	Tubing, Stainless Steel	Both inlet and outlet	\$ 2,25	43	mm	1,5	mm	roud tube	1,96E-04	0,40	7.850,00	1	\$ 1,38
												Sub Total	\$ 1,382

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
1	Tube cut		\$ 0,15	cm	8,6			\$ 1,29	
2	Tube bend	Shape inlets	\$ 0,75	bend	2			\$ 1,50	
3	Tube end preparation for welding		\$ 0,75	end	4			\$ 3,00	
4	Weld - Round Tubing	Weld inlets to headers and to outlet	\$ 0,38	cm	17,2			\$ 6,45	
								Sub Total	\$ 12,24

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
									\$ -	
									Sub Total	\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
	Welding Fixture		\$ 500,00	point	4	3000	1	\$ 0,67	
								Sub Total	\$ 0,67

University University of Seville
System Engine & Drivetrain
Assembly Exhaust
Part COLLECTOR, 2ND STAGE
P/N Base 25005
Suffix AA
Details

Car # 1

Part Cost \$ 15,86

Qty 1

Extended Cost \$ 15,86

ItemOrder	Material	Use	UnitCost	Outer D	Unit1	Thickness	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
1	Tubing, Stainless Steel	Inlet	\$ 2,25	49	mm	1	mm	round tube	1,51E-04	0,4	7.850,00	1	\$ 1,07
2	Tubing, Stainless Steel	Outlet	\$ 2,25	61	mm	1	mm	round tube	1,88E-04	0,05	7.850,00	1	\$ 0,17
Sub Total													\$ 1,232

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total
1	Tube cut		\$ 0,15	cm	14,05			\$ 2,11
2	Tube bend	Shape inlets	\$ 0,75	bend	2			\$ 1,50
3	Tube end preparation for welding		\$ 0,75	end	4			\$ 3,00
4	Weld - Round Tubing	Weld inlets to 1st-stage tubing and to outlet	\$ 0,38	cm	19,6			\$ 7,35
Sub Total								\$ 13,96

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total
									\$ -
Sub Total									\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total
	Welding Fixture		\$ 500,00	point	4	3000	1	\$ 0,67
Sub Total								\$ 0,67

University University of Seville
System Engine & Drivetrain
Assembly Exhaust
Part MUFFLER
P/N Base 25006
Suffix AA
Details

Car # 1

Part Cost \$ 42,44
Qty 1
Extended Cost \$ 42,44

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Unit	Length	Density	Quantity	Sub Total
1	Titanium	Inner tube	\$ 22,00	60	mm	1	mm	round tube	1,85E-04	m2	0,45	4.500,00	1	\$ 8,26
2	Titanium	Outer tube	\$ 22,00	130	mm	1	mm	round tube	4,05E-04	m2	0,45	4.500,00	1	\$ 18,05
3	Muffler batting	Muffle sound	\$ 0,003	50	cm	18,85	cm	rectangle	9,42E+02	cm2	1		1	\$ 2,83
5	Aluminium	Outside lining	\$ 4,20	130	mm	2,5	mm	round tube	1,00E-03	m2	0,45	2.768,30	1	\$ 5,24
6	Titanium	End caps	\$ 22,00					crowns sector	5,00E-04	m2	0,001	4.500,00	2	\$ 0,10
													Sub Total	\$ 34,478

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
1	Machining Setup, install and remove	Stamp caps	\$ 1,30	unit	1			\$ 1,30	
2	Sheet metal stamping	Stamp caps	\$ 0,03	cm2	50			\$ 1,50	
3	Tube end preparation for welding	caps and tubes	\$ 0,75	end	4			\$ 3,00	
4	Weld - Round Tubing	tubes plus muffler to exhaust tube	\$ 0,38	cm	4			\$ 1,50	
								Sub Total	\$ 7,30

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
									\$ -	
									Sub Total	\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
	Welding Fixture		\$ 500,00	point	4	3000	1	\$ 0,67	
								Sub Total	\$ 0,67

University University of Seville
System Engine & Drivetrain
Assembly DRIVETRAIN
P/N Base A2600
Suffix AA
Details

Car # 1

Asm Cost \$ 541,99
Qty 1
Extended Cost \$ 541,99

ItemOrder	Part	Part Cost	Quantity	Sub Total
1	Driving Sprocket	\$ 3,04	1	\$ 3,036
2	Driven Sprocket	\$ 16,49	1	\$ 16,494
3	Chain	\$ 60,00	1	\$ 60,000
4	Chain Guard	\$ 4,64	1	\$ 4,645
5	Differential Housing	\$ 75,11	1	\$ 75,114
6	Differential Internals	\$ 165,00	1	\$ 165,000
7	Differential Carrier	\$ 67,13	2	\$ 134,267
8	Half Axles	\$ 28,43	1	\$ 28,433
9	C-V Joint	\$ 25,00	2	\$ 50,000
			Sub Total	\$ 536,989

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
												Sub Total	\$ -

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total
	Adjustment - Misc.	Tense chain	\$ 5,00	unit	1			\$ 5,00
							Sub Total	\$ 5,00

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
									\$ -	
									Sub Total	\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FractionIncluded	Sub Total	
								\$ -	
								Sub Total	\$ -

University University of Seville
System Engine & Drivetrain
Assembly Drivetrain
Part DRIVING SPROCKET
P/N Base 26001
Suffix AA
Details 13 Teeth. Alloy steel

Car # 1

Part Cost \$ 3,04

Qty 1

Extended Cost \$ 3,04

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
	Steel, Alloy		\$ 2,25	55	mm			circle	2,38E-03	6,35E-03	7.850,00	1	\$ 0,27
												Sub Total	\$ 0,266

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
1	Machining Setup, Install and remove		\$ 1,30		1			\$ 1,30	
2	Machining		\$ 0,04	cm3	7,55			\$ 0,30	
3	Drilled holes < 25.4 mm dia.	hole for broach	\$ 0,35	hole	1			\$ 0,35	
4	Broach, Internal		\$ 0,50	cm	1			\$ 0,50	
5	Gear Shaping (hobbing)		\$ 0,50	cm	0,635			\$ 0,32	
								Sub Total	\$ 2,77

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
									\$ -	
									Sub Total	\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
								Sub Total	\$ -

University University of Seville
System Engine & Drivetrain
Assembly Drivetrain
Part DRIVEN SPROCKET
P/N Base 26002
Suffix AA
Details 48 Teeth. Aluminium

Car # 1

Part Cost \$ 16,49

Qty 1

Extended Cost \$ 16,49

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
	Aluminium, Premium		\$ 4,20	200	mm			circle	3,14E-02	6,35E-03	2.768,30	1	\$ 2,32
Sub Total													\$ 2,319

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total
1	Machining Setup, Install and remove		\$ 1,30		2			\$ 2,60
2	Machining	lightening holes	\$ 0,04	cm3	50,42			\$ 2,02
3	Drilled holes < 25.4 mm dia.	holes for bolts	\$ 0,35	hole	6			\$ 2,10
4	Gear Shaping (hobbing)		\$ 0,50	cm	0,635			\$ 0,32
5	Ratchet <= 25.4 mm	Tighten bolts	\$ 0,75	unit	6			\$ 4,50
6	Reaction Tool <= 25.4 mm	Tighten bolts	\$ 0,25	unit	6			\$ 1,50
Sub Total								\$ 13,03

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total
1	Bolt, Grade 8.8 (SAE 5)	attachment	0,11	10	mm	12,7	mm	6	\$ 0,66
2	Nut, Grade 8.8 (SAE 5)	attachment	0,07	10	mm			6	\$ 0,42
3	Washer, Grade 8.8 (SAE 5)	attachment	0,01	10	mm			6	\$ 0,06
Sub Total									\$ 1,14

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
								Sub Total	\$ -

University University of Seville
System Engine & Drivetrain
Assembly Drivetrain
Part CHAIN
P/N Base 26003
Suffix AA
Details

Car # 1

Part Cost \$ 60,00
Qty 1
Extended Cost \$ 60,00

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
	Chain		\$ 0,05	1200	mm							1,00E+00	\$ 60,00
												Sub Total	\$ 60,000

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
								\$ -	
								Sub Total	\$ -

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
									\$ -	
									Sub Total	\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
								Sub Total	\$ -

University University of Seville
System Engine & Drivetrain
Assembly Drivetrain
Part CHAIN GUARD
P/N Base 26004
Suffix AA
Details Parts and dimensions in compliance with rules.

Car # 1

Part Cost \$ 4,64
Qty 1
Extended Cost \$ 4,64

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
	Steel, Mild		\$ 2,25	60	cm	2,5	cm	rectangle	0,015	0,0027	7.850,00	1,00E+00	\$ 0,70
Sub Total													\$ 0,705

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total
1	Machining Setup, Install and remove		\$ 1,30	unit	1			\$ 1,30
2	Sheet metal bends	shape	\$ 0,25	bend	2			\$ 0,50
3	Ratchet <= 25.4 mm	tighten bolt	\$ 0,75	unit	2			\$ 1,50
4	Reaction Tool <= 25.4 mm	tighten bolt	\$ 0,25	unit	2			\$ 0,50
Sub Total								\$ 3,80

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total
1	Bolt, Grade 8.8 (SAE 5)	attachment	0,03	6,35	mm	10	mm	2	\$ 0,06
2	Nut, Grade 8.8 (SAE 5)	attachment	0,03	6,35	mm			2	\$ 0,06
3	Washer, Grade 8.8 (SAE 5)	attachment	0,01	6,35	mm			2	\$ 0,02
Sub Total									\$ 0,14

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total
Sub Total								\$ -

University University of Seville
System Engine & Drivetrain
Assembly Drivetrain
Part DIFFERENTIAL HOUSING
P/N Base 26005
Suffix AA
Details Aluminium. Machined

Car # 1

Part Cost \$ 75,11

Qty 1

Extended Cost \$ 75,11

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
	Aluminium, Normal		\$ 4,20	80	mm	80	mm	Square	0,0064	0,10	2.768,30	2	\$ 14,88
												Sub Total	\$ 14,882

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
1	Machining Setup, Install and remove		\$ 1,30	unit	2			\$ 2,60	
2	Drilled holes < 25.4 mm dia.	bolt holes	\$ 0,35	hole	8			\$ 2,80	
3	Machining	shape	\$ 0,04	cm3	1364,8			\$ 54,59	
								Sub Total	\$ 59,99

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
	Bolt, Grade 8.8 (SAE 5)	Attach both sides	0,03	5	mm	18	mm	8	\$ 0,24	
									Sub Total	\$ 0,24

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
								Sub Total	\$ -

University University of Seville
System Engine & Drivetrain
Assembly Drivetrain
Part DIFFERENTIAL INTERNALS
P/N Base 26006
Suffix AA
Details

Car # 11

Part Cost \$ 165,00
Qty 1
Extended Cost \$ 165,00

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
	Differential Internals, Limited Slip, Quaife		\$ 165,00									1	\$ 165,00
												Sub Total	\$ 165,000

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
								\$ -	
								Sub Total	\$ -

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
									\$ -	
									Sub Total	\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
								Sub Total	\$ -

University University of Seville
System Engine & Drivetrain
Assembly Drivetrain
Part DIFFERENTIAL CARRIER
P/N Base 26007
Suffix AA
Details Aluminium. Machined

Car # 1

Part Cost \$ 67,13
Qty 2
Extended Cost \$ 134,27

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
1	Aluminium, Premium		\$ 4,20	300	mm	150	mm	Triangle	0,0225	0,035	2.768,30	1	\$ 9,16
2	Bearing, Ball, Radial		\$ 15,81	50	mm	10	mm					1	\$ 15,81
												Sub Total	\$ 24,966

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
1	Maachining Setup, Install and remove		\$ 1,30	unit	2			\$ 2,60	
2	Machining	shape	\$ 0,04	cm3	951			\$ 38,04	
3	Assemble, 1 kg, Interference	Insert bearing	\$ 0,19	unit	1			\$ 0,19	
4	Power Tool <= 25.4 mm	tighten bolt	\$ 0,25	unit	2			\$ 0,50	
5	Reaction Tool <= 25.4 mm	tighten bolt	\$ 0,25	unit	2			\$ 0,50	
								Sub Total	\$ 41,83

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
1	Bolt, Grade 8.8 (SAE 5)	Fasten to frame	0,11	8	mm	28	mm	2	\$ 0,22	
2	Nut, Grade 8.8 (SAE 5)	Fasten to frame	0,04	8	mm			2	\$ 0,08	
3	Washer, Grade 8.8 (SAE 5)	Fasten to frame	0,01	8	mm			4	\$ 0,04	
									Sub Total	\$ 0,34

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
								Sub Total	\$ -

University University of Seville
System Engine & Drivetrain
Assembly Drivetrain
Part HALF AXLE
P/N Base 26008
Suffix AA
Details Set of two half axles

Car # 11

Part Cost \$ 28,43
Qty 1
Extended Cost \$ 28,43

ItemOrder	Material	Use	UnitCost	Diam.	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
1	Steel, Alloy	Right	\$ 2,25	28	mm			Round bar	6,16E-04	0,70	7.850,00	1	\$ 7,61
2	Steel, Alloy	Left	\$ 2,25	28	mm			Round bar	6,16E-04	0,55	7.850,00	1	\$ 5,98
												Sub Total	\$ 13,595

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
1	Machining Setup, Install and remove	two: one for each axle	\$ 1,30	unit	2			\$ 2,60	
2	Gear Shaping (hobbing)	Spline: 5 cm per end	\$ 0,50	cm	20			\$ 10,00	
3	Machining Setup, Change	Flip axle			2			\$ -	
4	Machining	Groove for clip	\$ 0,04	cm3	0,127			\$ 0,01	
5	Machining	Lightening hole	\$ 0,04	cm3	48,34			\$ 1,93	
								Sub Total	\$ 14,54

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
	Retaining Ring, Internal	Ends of axle	0,15	28	mm			2	\$ 0,30	
									Sub Total	\$ 0,30

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
								Sub Total	\$ -

University University of Seville
System Engine & Drivetrain
Assembly Drivetrain
Part C-V JOINT
P/N Base 26009
Suffix AA
Details

Car # 11

Part Cost \$ 25,00
Qty 2
Extended Cost \$ 50,00

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
1	Constant Velocity Joint, Rzeppa Plunging		\$ 20,00									1	\$ 20,00
2	Constant Velocity Joint, Boot		\$ 5,00									1	\$ 5,00
												Sub Total	\$ 25,000

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
								\$ -	
								Sub Total	\$ -

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
									\$ -	
									Sub Total	\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
								Sub Total	\$ -

University University of Seville
System Frame & Body
Assembly FRAME ASMB.
P/N Base A3100
Suffix AA
Details

Car # 11

Asm Cost \$ 442,39
Qty 1
Extended Cost \$ 442,39

ItemOrder	Part	Part Cost	Quantity	Sub Total
1	Frame	\$ 399,94	1	\$ 399,945
2	Tab Stock	\$ 42,44	1	\$ 42,443
			Sub Total	\$ 442,388

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
													\$ -
												Sub Total	\$ -

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
								\$ -	
								Sub Total	\$ -

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
									\$ -	
									Sub Total	\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FractionIncluded	Sub Total	
								\$ -	
								Sub Total	\$ -

University University of Seville
System Frame & Body
Assembly Frame Asmb.
Part FRAME
P/N Base 31001
Suffix AA
Details Tubular. All Steel.

Car # 1

Part Cost \$ 399,94

Qty 1

Extended Cost \$ 399,94

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
1	Steel, Mild	Lower Contour	\$ 2,25	25,0	mm	3,0	mm	square tube	2,64E-04	4,78	7.850,00	1	\$ 22,31
2	Steel, Mild	Upper Contour & all Hoops	\$ 2,25	25,4	mm	2,4	mm	round tube	1,73E-04	10,36	7.850,00	1	\$ 31,74
3	Steel, Mild	Triangulation Bars	\$ 2,25	20,0	mm	2,5	mm	round tube	1,37E-04	14,73	7.850,00	1	\$ 35,76
4	Steel, Mild	Side-Impact Protection Bars	\$ 2,25	25,4	mm	1,7	mm	round tube	1,23E-04	7,62	7.850,00	1	\$ 16,56
5	Steel, Mild	Driver's Harness Bar	\$ 2,25	25,0	mm	2,5	mm	round tube	1,77E-04	0,95	7.850,00	1	\$ 2,97
												Sub Total	\$ 109,345

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
1	Machining Setup, Install and remove	Tube cut. Four: Driver's Harness Bar needs no cutting.	\$ 1,30	unit	4			\$ 5,20	
2	Tube cut		\$ 0,15	cm	220			\$ 33,00	
3	Tube end preparation for welding	Ninety Bars	\$ 0,75	end	180			\$ 135,00	
4	Welding - round tubing		\$ 0,38	cm	230			\$ 87,40	
								Sub Total	\$ 260,60

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
									\$ -	
									Sub Total	\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
	Welding Fixture		\$ 500,00	point	180	3000	1	\$ 30,00	
								Sub Total	\$ 30,00

University University of Seville
System Frame & Body
Assembly Frame Asmb.
Part TAB STOCK
P/N Base 31002
Suffix AA
Details All tabs. Steel Sheet.

Car # 1

Part Cost \$ 42,44

Qty 1

Extended Cost \$ 42,44

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area /m2	Thickness	Density	Quantity	Sub Total
1	Steel, Mild	30 Tabs	\$ 2,25	50	mm	35	mm	30 triangles	2,63E-02	2	7.850,00	1	\$ 0,93
												Sub Total	\$ 0,927

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
1	Machine Setup, Install and remove	one for cut & one for drill	\$ 1,30	unit	2			\$ 2,60	
2	Drilled hole < 25.4 mm dia.	hole for bolt	\$ 0,35	hole	30			\$ 10,50	
3	Waterjet Cut	Cut tabs	\$ 0,01	cm	91,55			\$ 0,92	
4	Weld	Weld to frame	\$ 0,15	cm	150			\$ 22,50	
								Sub Total	\$ 36,52

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
									\$ -	
									Sub Total	\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncid	Sub Total	
	Welding Fixture	30 tabs	\$ 500,00	point	30	3000	1	\$ 5,00	
								Sub Total	\$ 5,00

University University of Seville
System Frame & Body
Assembly **BODY ASMB.**
P/N Base A3200
Suffix AA
Details

Car # 11

Asm Cost \$ 1.595,31
Qty 1
Extended Cost \$ 1.595,31

ItemOrder	Part	Part Cost	Quantity	Sub Total
1	Nose Cone	\$ 310,14	1	\$ 310,142
2	Right Side Panel	\$ 163,99	1	\$ 163,985
3	Left Side Panel	\$ 163,99	1	\$ 163,985
4	Engine Hood	\$ 171,01	1	\$ 171,012
5	Floor Pan	\$ 786,19	1	\$ 786,187
			Sub Total	\$ 1.595,310

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
													\$ -
												Sub Total	\$ -

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
								\$ -	
								Sub Total	0

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
									\$ -	
									Sub Total	\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FractionIncluded	Sub Total	
								\$ -	
								Sub Total	\$ -

University University of Seville
System Frame & Body
Assembly BODY ASMB.
Part NOSE CONE
P/N Base 32001
Suffix AA
Details Glass Fiber. Three plies

Car # 11

Part Cost \$ 310,14
Qty 1
Extended Cost \$ 310,14

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
	Glass Fiber, 1ply	Nose cone and Dash panel	\$ 100,00	0,5	kg							3	\$ 150,00
												Sub Total	\$ 150,00

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
1	Lamination,Manual		\$ 35,00	m2	4,011			\$ 140,39	
2	Cure, Room Temperature		\$ 10,00	m2	1,337			\$ 13,37	
3	Assemble, 1kg, Line-on-Line	Mount on frame	\$ 0,13	unit	1			\$ 0,13	
								Sub Total	\$ 153,89

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
	Hose Clamp, Spring Steel	Attachment	0,36	25,4	mm			5	\$ 1,80	
									Sub Total	\$ 1,80

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	Frac. Incl.	Sub Total	
	Lamination - Composite Tool		\$ 10.000,00	m2	1,337	3000	1	\$ 4,46	
								Sub Total	\$ 4,46

University University of Seville
System Frame & Body
Assembly BODY ASMB.
Part RIGHT SIDE PANEL
P/N Base 32002
Suffix AA
Details Glass Fiber. Three plies

Car # 11

Part Cost \$ 163,99

Qty 1

Extended Cost \$ 163,99

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
	Glass Fiber, 1ply		\$ 100,00	0,268	kg							3	\$ 80,40
												Sub Total	\$ 80,400

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
1	Lamination,Manual		\$ 35,00	m2	2,061			\$ 72,14	
2	Cure, Room Temperature		\$ 10,00	m2	0,687			\$ 6,87	
3	Assemble, 1kg, Line-on-Line	Mount on frame	\$ 0,13	unit	1			\$ 0,13	
								Sub Total	\$ 79,14

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
	Hose Clamp, Spring Steel		0,36					6	\$ 2,16	
									Sub Total	\$ 2,16

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
	Lamination - Composite Tool		\$ 10.000,00	m2	0,687	3000	1	\$ 2,29	
								Sub Total	\$ 2,29

University University of Seville
System Frame & Body
Assembly BODY ASMB.
Part LEFT SIDE PANEL
P/N Base 32003
Suffix AA
Details Glass Fiber. Three plies

Car # 11

Part Cost \$ 163,99

Qty 1

Extended Cost \$ 163,99

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
	Glass Fiber, 1ply		\$ 100,00	0,268	kg							3	\$ 80,40
												Sub Total	\$ 80,400

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
1	Lamination,Manual		\$ 35,00	m2	2,061			\$ 72,14	
2	Cure, Room Temperature		\$ 10,00	m2	0,687			\$ 6,87	
3	Assemble, 1kg, Line-on-Line	Mount on frame	\$ 0,13	unit	1			\$ 0,13	
								Sub Total	\$ 79,14

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
	Hose Clamp, Spring Steel		0,36					6	\$ 2,16	
									Sub Total	\$ 2,16

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
	Lamination - Composite Tool		\$ 10.000,00	m2	0,687	3000	1	\$ 2,29	
								Sub Total	\$ 2,29

University University of Seville
System Frame & Body
Assembly BODY ASMB.
Part ENGINE HOOD
P/N Base 32004
Suffix AA
Details Glass Fiber. Three plies

Car # 11

Part Cost \$ 171,01

Qty 1

Extended Cost \$ 171,01

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
	Glass Fiber, 1ply		\$ 100,00	0,28	kg							3	\$ 84,00
												Sub Total	\$ 84,00

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
1	Lamination,Manual		\$ 35,00	m2	2,157			\$ 75,50	
2	Cure, Room Temperature		\$ 10,00	m2	0,719			\$ 7,19	
3	Assemble, 1kg, Line-on-Line	Mount on frame	\$ 0,13	unit	1			\$ 0,13	
								Sub Total	\$ 82,82

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
	Hose Clamp, Spring Steel		0,36					5	\$ 1,80	
									Sub Total	\$ 1,80

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
	Lamination - Composite Tool		\$ 10.000,00	m2	0,719	3000	1	\$ 2,40	
								Sub Total	\$ 2,40

University University of Seville
System Frame & Body
Assembly BODY ASMB.
Part FLOOR PAN
P/N Base 32005
Suffix AA
Details Carbon Fiber. Four Plies

Car # 11

Part Cost \$ 786,19
Qty 1
Extended Cost \$ 786,19

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
1	Carbon Fiber, 1ply	two outer & two inner	\$ 200,00	0,435	kg							4	\$ 348,00
3	Honeycomb cardboard	Core	\$ 10,00	0,500	kg							1	\$ 5,00
												Sub Total	\$ 353,000

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
1	Lamination,Manual		\$ 35,00	m2	8,696			\$ 304,36	
2	Cure, Autoclave		\$ 50,00	m2	2,174			\$ 108,70	
3	Assemble, 1kg, Line-on-Line	Attach to frame	\$ 0,13	unit	1			\$ 0,13	
4	Power Tool <= 25.4 mm	Tighten bolts	\$ 0,25	unit	17			\$ 4,25	
5	Reaction Tool <= 25.4 mm	Tighten bolts	\$ 0,25	unit	17			\$ 4,25	
								Sub Total	\$ 421,69

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
1	Bolt, Grade 8.8 (SAE 5)	Attachment	\$ 0,20					17	\$ 3,40	
2	Nut, Grade 8.8 (SAE 5)	Attachment	\$ 0,04					17	\$ 0,68	
3	Washer, Grade 8.8 (SAE 5)	Attachment	\$ 0,01					17	\$ 0,17	
									Sub Total	\$ 4,25

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
	Lamination - Composite Tool		\$ 10.000,00	m2	2,174	3000	1	\$ 7,25	
								Sub Total	\$ 7,25

University University of Seville
System Frame & Body
Assembly PEDALS & SHIFTER ASMB.
P/N Base A3300
Suffix AA
Details

Car # 11

Asm Cost \$ 132,19
Qty 1
Extended Cost \$ 132,19

ItemOrder	Part	Part Cost	Quantity	Sub Total
1	Pedals	\$ 112,06	1	\$ 112,063
2	Shifter	\$ 20,13	1	\$ 20,125
			Sub Total	\$ 132,188

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
													\$ -
												Sub Total	\$ -

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
								\$ -	
								Sub Total	\$ -

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
									\$ -	
									Sub Total	\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FractionIncluded	Sub Total	
								\$ -	
								Sub Total	\$ -

University University of Seville
System Frame & Body
Assembly Pedals & Shifter Asmb.
Part PEDALS
P/N Base 33001
Suffix AA
Details Purchased. Includes Bias Bar Adjuster

Car # 11

Part Cost \$ 112,06
Qty 1
Extended Cost \$ 112,06

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
	Pedal Assembly, Optimum Balance Products OBP0181	Gas and Brake	\$ 110,00									1	\$ 110,00
												Sub Total	\$ 110,00

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
1	Assemble, 1 kg, Loose	Place asmb. in frame	\$ 0,06	unit	1			\$ 0,06	
2	Power Tool <= 25.4 mm	tighten bolts	\$ 0,25		4			\$ 1,00	
3	Reaction Tool <= 25.4 mm	tighten bolts	\$ 0,25		4			\$ 1,00	
								Sub Total	\$ 2,06

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
									\$ -	
									Sub Total	\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
								Sub Total	\$ -

University University of Seville
System Frame & Body
Assembly Pedals & Shifter Asmb.
Part SHIFTER
P/N Base 33002
Suffix AA
Details

Car # 11

Part Cost \$ 20,13
Qty 1
Extended Cost \$ 20,13

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
	Shift Lever, Bicycle OEM		\$ 20,00									1	\$ 20,00
												Sub Total	\$ 20,000

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
1	Assemble, 1 kg, Line-on-Line	Mount on frame	\$ 0,13	unit	1			\$ 0,13	
								Sub Total	\$ 0,13

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
									\$ -	
									Sub Total	\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
								Sub Total	\$ -

University University of Seville **Car #** 1
System Electrical
Assembly POWER SUPPLY
P/N Base A4100
Suffix AA
Details

Asm Cost \$ 34,31
Qty 1
Extended Cost \$ 34,31

ItemOrder	Part	Part Cost	Quantity	Sub Total
1	Battery	\$ 15,31	1	\$ 15,313
2	Primary Kill Switch	\$ 4,75	1	\$ 4,750
3	Cockpit Kill Switch	\$ 4,75	1	\$ 4,750
4	Brake Overtravel Switch	\$ 5,00	1	\$ 5,000
			Sub Total	\$ 29,813

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
	Wire, Power		\$ 3,00	1,50	m								\$ 4,50
												Sub Total	\$ 4,500

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
								\$ -	
								Sub Total	0

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
									\$ -	
									Sub Total	\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FractionIncluded	Sub Total	
								\$ -	
								Sub Total	\$ -

University University of Seville
System Electrical
Assembly Power Supply
Part BATTERY
P/N Base 41001
Suffix AA
Details Lead Acid

Car # 1

Part Cost \$ 15,31

Qty 1

Extended Cost \$ 15,31

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
1	Battery, Lead Acid		\$ 3,00	5	kg							1	\$ 15,00
												Sub Total	\$ 15,000

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
	Assemble, 5 kg, Loose	Mount battery	\$ 0,31	unit	1			\$ 0,31	
								Sub Total	\$ 0,31

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
									\$ -	
									Sub Total	\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
								Sub Total	0

University University of Seville
System Electrical
Assembly Power Supply
Part PRIMARY KILL SWITCH
P/N Base 41002
Suffix AA
Details

Car # 1

Part Cost \$ 4,75
Qty 1
Extended Cost \$ 4,75

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
	Switch, Rotary Multi-position Selector	Shut down all power supply	\$ 3,00									1	\$ 3,00
												Sub Total	\$ 3,000

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
1	Assemble, 1 kg, Line-on-Line	Plug in socket	\$ 0,25	unit	1			\$ 0,25	
2	Ratchet <= 25.4 mm	Tighten bolts	\$ 0,75	unit	2			\$ 1,50	
								Sub Total	\$ 1,75

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
									\$ -	
									Sub Total	\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
								Sub Total	0

University University of Seville
System Electrical
Assembly Power Supply
Part COCKPIT KILL SWITCH
P/N Base 41003
Suffix AA
Details Push/Pull Type

Car # 1

Part Cost \$ 4,75
Qty 1
Extended Cost \$ 4,75

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
	Switch, Kill	Shut down engine and fuel pump	\$ 3,00									1	\$ 3,00
												Sub Total	\$ 3,000

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
1	Assemble, 1 kg, Line-on-Line	Plug in socket	\$ 0,25	unit	1			\$ 0,25	
2	Ratchet <= 25.4 mm	Fasten to frame	\$ 0,75	unit	2			\$ 1,50	
								Sub Total	\$ 1,75

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
									\$ -	
									Sub Total	\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
								Sub Total	\$ -

University University of Seville
System Electrical
Assembly Power Supply
Part BRAKE OVERTRAVEL SWITCH
P/N Base 41004
Suffix AA
Details

Car # 1

Part Cost \$ 5,00
Qty 1
Extended Cost \$ 5,00

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
1	Switch, Toggle		\$ 1,00									1	\$ 1,00
2	Relay, Power		\$ 4,00									1	\$ 4,00
												Sub Total	\$ 5,000

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
								\$ -	
								Sub Total	\$ -

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
									\$ -	
									Sub Total	\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
								Sub Total	0

University University of Seville **Car #** 1
System Electrical
Assembly ENGINE ELECTRONICS
P/N Base A4200
Suffix AA
Details

Asm Cost \$ 1.642,35
Qty 1
Extended Cost \$ 1.642,35

ItemOrder	Part	Part Cost	Quantity	Sub Total
1	Engine Control Unit	\$ 1.615,00	1	\$ 1.615,000
2	Engine Sensors	\$ 26,00	1	\$ 26,000
3	Wire Harness	\$ 1,35	1	\$ 1,350
Sub Total				\$ 1.642,35

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
													\$ -
Sub Total													\$ -

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total
								\$ -
Sub Total								0

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total
									\$ -
Sub Total									\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FractionIncluded	Sub Total
								\$ -
Sub Total								\$ -

University University of Seville **Car #** 1
System Electrical
Assembly Engine Electronics
Part ENGINE CONTROL UNIT
P/N Base 42001
Suffix AA
Details

Part Cost \$ 1.615,00
Qty 1
Extended Cost \$ 1.615,00

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
	ECU, MoTeC, M400		\$ 1.615,00									1	\$ 1.615,00
												Sub Total	\$ 1.615,000

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
								\$ -	
								Sub Total	\$ -

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
									\$ -	
									Sub Total	\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
								Sub Total	0

University University of Seville
System Electrical
Assembly Engine Electronics
Part ENGINE SENSORS
P/N Base 42002
Suffix AA
Details

Car # 1

Part Cost \$ 26,00
Qty 1
Extended Cost \$ 26,00

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
1	Sensor, Manifold Absolute Pressure (MAP)	Intake Air	\$ 4,00									1	\$ 4,00
2	Sensor, Air Temperature	Intake Air	\$ 4,00									1	\$ 4,00
3	Sensor, Temperature	Cooling Water	\$ 8,00									1	\$ 8,00
4	Sensor, Fluid Pressure and Temperature	Engine Oil	\$ 10,00									1	\$ 10,00
												Sub Total	\$ 26,000

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total
								\$ -
								Sub Total \$ -

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total
									\$ -
									Sub Total \$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total
								Sub Total 0

University University of Seville
System Electrical
Assembly Engine Electronics
Part WIRE HARNESS
P/N Base 42003
Suffix AA
Details

Car # 1

Part Cost \$ 1,35
Qty 1
Extended Cost \$ 1,35

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
1	Wire, Signal		\$ 1,00	0,95	m							1	\$ 0,95
2	Connector, Single Wire		\$ 0,05	per wire end								8	\$ 0,40
												Sub Total	\$ 1,350

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
								\$ -	
								Sub Total	\$ -

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
									\$ -	
									Sub Total	\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
								Sub Total	\$ -

University University of Seville **Car #** 1
System Electrical
Assembly DASH PANEL
P/N Base A4300
Suffix AA
Details

Asm Cost \$ 611,80
Qty 1
Extended Cost \$ 611,80

ItemOrder	Part	Part Cost	Quantity	Sub Total
1	Display & Datalogger	\$ 600,00	1	\$ 600,000
2	Speedometer	\$ 11,80	1	\$ 11,800
Sub Total				\$ 611,800

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
													\$ -
Sub Total												\$ -	

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total
								\$ -
Sub Total								0

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total
									\$ -
Sub Total									\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FractionIncluded	Sub Total
								\$ -
Sub Total								\$ -

University University of Seville
System Electrical
Assembly Dash Panel
Part **DISPLAY & DATALOGGER**
P/N Base 43001
Suffix AA
Details

Car # 1

Part Cost \$ 600,00
Qty 1
Extended Cost \$ 600,00

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
	Display & Datalogger, MyChron 3 Plus		\$ 600,00									1	\$ 600,00
												Sub Total	\$ 600,000

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total
								\$ -
							Sub Total	\$ -

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total
									\$ -
								Sub Total	\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total
							Sub Total	0

University University of Seville
System Electrical
Assembly Dash Panel
Part SPEEDOMETER
P/N Base 42002
Suffix AA
Details

Car # 1

Part Cost \$ 11,80
Qty 1
Extended Cost \$ 11,80

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
1	Sensor, Hall Effect		\$ 4,00									2	\$ 8,00
2	Wire, Signal		\$ 1,00	1,80	m							1	\$ 1,80
3	Connector, OEM Quality		\$ 0,50									4	\$ 2,00
												Sub Total	\$ 11,800

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total
								\$ -
							Sub Total	\$ -

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
									\$ -	
									Sub Total	\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
								Sub Total	0

University University of Seville **Car #** 1
System Electrical
Assembly BRAKE LIGHT ASMB.
P/N Base A4400
Suffix AA
Details

Asm Cost \$ 65,36
Qty 1
Extended Cost \$ 65,36

ItemOrder	Part	Part Cost	Quantity	Sub Total
1	Brake Light	\$ 4,00	1	\$ 4,000
2	Brake Light Circuit	\$ 61,36	1	\$ 61,360
			Sub Total	\$ 65,360

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
													\$ -
												Sub Total	\$ -

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total
								\$ -
							Sub Total	0

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total
									\$ -
								Sub Total	\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FractionIncluded	Sub Total
								\$ -
							Sub Total	\$ -

University University of Seville
System Electrical
Assembly Brake Light Asmb.
Part BRAKE LIGHT
P/N Base
Suffix AA
Details

Car # 1

Part Cost \$ 4,00
Qty 1
Extended Cost \$ 4,00

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
	Lamp, Brake With Housing		\$ 4,00									1	\$ 4,00
												Sub Total	\$ 4,000

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
								\$ -	
								Sub Total	\$ -

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
									\$ -	
									Sub Total	\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
								Sub Total	0

University University of Seville
System Electrical
Assembly Brake Light Asmb.
Part BRAKE LIGHT CIRCUIT
P/N Base 44002
Suffix AA
Details

Car # 1

Part Cost \$ 61,36

Qty 1

Extended Cost \$ 61,36

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
1	Brake Light Pressure Switch Banjo Bolt	Detect braking	\$ 8,00									1	\$ 8,00
2	Wire, Signal		\$ 1,00	3,00	m								\$ 3,00
3	Heat Shrink Tubing	Protect wire	\$ 0,50	3,00	m								\$ 1,50
4	Connector, OEM Quality		\$ 0,50									2	\$ 1,00
												Sub Total	\$ 13,500

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
1	Shrink Tube		\$ 0,15	cm	300			\$ 45,00	
2	Cut Wire	Trim to lenght	\$ 0,08	unit	2			\$ 0,16	
3	Strip Wire		\$ 0,08	unit	6			\$ 0,48	
4	Lay Wire - Signal		\$ 0,02	m	3,00			\$ 0,06	
5	Connector Assembly, Crimp		\$ 0,36	contact	6			\$ 2,16	
								Sub Total	\$ 47,86

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
									\$ -	
									Sub Total	\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncid	Sub Total	
								Sub Total	0

University University of Seville
System Miscel., Finish & Assem.
Assembly SEAT & COCKPIT SAFETY
P/N Base A5100
Suffix AA
Details

Car # 1

Asm Cost \$ 1.553,50

Qty 1

Extended Cost \$ 1.553,50

ItemOrder	Part	Part Cost	Quantity	Sub Total
1	Seat	\$ 1.416,17	1	\$ 1.416,167
2	Driver's Harness	\$ 46,72	1	\$ 46,720
3	Fire Wall	\$ 90,62	1	\$ 90,618
Sub Total				\$ 1.553,505

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
													\$ -
Sub Total												\$ -	

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total
								\$ -
Sub Total								0

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total
									\$ -
Sub Total									\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FractionIncluded	Sub Total
								\$ -
Sub Total								0

University University of Seville
System Miscel., Finish & Assem.
Assembly Seat & Cockpit Safety
Part SEAT
P/N Base 51001
Suffix AA
Details Includes Headrest

Car # 1

Part Cost \$ 1.416,17

Qty 1

Extended Cost \$ 1.416,17

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
1	Glass Fiber, 1 ply	base	\$ 100,00	2,633	kg				0,585	0,003	1.500,00	5	\$ 1.316,25
2	Foam, Expanding, Non-Structural	padding	\$ 15,00	0,769	kg				0,600	0,04	32,04		\$ 11,53
3	Fabric	fire-proof lining	\$ 2,50	0,600	m2								\$ 1,50
												Sub Total	\$ 1.329,284

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
1	Lamination, Manual	glass fiber	\$ 35,00	m2	1,755			\$ 61,43	
2	Cure, Room Temperature	glass fiber	\$ 10,00	m2	0,585			\$ 5,85	
3	Liquid Apply - Pour Expanding Foam		\$ 2,00	m3	0,024			\$ 0,05	
4	Cut (scissors, knife)	trim foam	\$ 0,06	cm	160			\$ 9,60	
5	Aerosol Apply	Glue lining	\$ 5,25	m2	0,600			\$ 3,15	
6	Power Tool <= 25.4 mm	tighten bolts	\$ 0,25	unit	6			\$ 1,50	
7	Reaction Tool <= 25.4 mm	tighten bolts	\$ 0,25	unit	6			\$ 1,50	
								Sub Total	\$ 83,07

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
1	Bolt, Grade 10.9 (SAE 8)	attach to frame	\$ 0,20	10	mm	30	mm	6	\$ 1,20	
2	Nut, Grade 10.9 (SAE 8)	attach to frame	\$ 0,09	10	mm			6	\$ 0,54	
3	Washer, Grade 10.9 (SAE 8)	attach to frame	\$ 0,02	10	mm			6	\$ 0,12	
									Sub Total	\$ 1,86

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
	Lamination - Comp. Tool		\$ 10.000,00	m2	0,585	3000	1	\$ 1,95	
								Sub Total	\$ 1,95

University University of Seville
System Miscel., Finish & Assem.
Assembly Seat & Cockpit Safety
Part DRIVER'S HARNESS
P/N Base 51002
Suffix AA
Details Chest straps attached to frame with tabs. Bottom straps wrapped.

Car # 1

Part Cost \$ 46,72

Qty 1

Extended Cost \$ 46,72

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
	Driver's Harness		\$ 45,00									1	\$ 45,00
												Sub Total	\$ 45,000

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
1	Power Tool <= 25.4 mm	tighten bolts	\$ 0,25	unit	2			\$ 0,50	
2	Reaction Tool <= 25.4 mm	tighten bolts	\$ 0,25	unit	2			\$ 0,50	
								Sub Total	\$ 1,00

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
1	Bolt, Grade 10.9 (SAE 8)		\$ 0,25	10 mm		30 mm		2	\$ 0,50	
2	Nut, Grade 10.9 (SAE 8)		\$ 0,09	10 mm				2	\$ 0,18	
3	Washer, Grade 10.9 (SAE 8)		\$ 0,02	10 mm				2	\$ 0,04	
									Sub Total	\$ 0,72

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
								Sub Total	0

University University of Seville
System Miscel., Finish & Assem.
Assembly Seat & Cockpit Safety
Part FIRE WALL
P/N Base 51003
Suffix AA
Details

Car # 1

Part Cost \$ 90,62

Qty 1

Extended Cost \$ 90,62

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
1	Heat Barrier	Rear of seat	\$ 50,00	0,585	m2								\$ 29,25
2	Aluminium	Fire Wall	\$ 4,20	6,893067	kg				0,83	0,003	2.768,30		\$ 28,95
												Sub Total	\$ 58,201

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
1	Sheet metal shearing	aluminium	\$ 0,25	cut	3			\$ 0,75	
2	Sheet metal bend	aluminium	\$ 0,25	bend	4			\$ 1,00	
3	Weld	weld to frame	\$ 0,15	cm	180			\$ 27,00	
								Sub Total	\$ 28,75

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
									\$ -	
									Sub Total	\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
	Welding Fixture		\$ 500,00	point	22	3000	1	\$ 3,67	
								Sub Total	\$ 3,67

University University of Seville
System Steering
Assembly STEERING WHEEL ASMB.
P/N Base A6100
Suffix AA
Details

Car # 1

Asm Cost \$ 21,78

Qty 1

Extended Cost \$ 21,78

ItemOrder	Part	Part Cost	Quantity	Sub Total
1	Steering Wheel	\$ 13,60	1	\$ 13,599
2	Steering Wheel Quick Release	\$ 8,18	1	\$ 8,177
Sub Total				\$ 21,776

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
												1	\$ -
												1	\$ -
Sub Total												\$ -	

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total
								\$ -
								\$ -
								\$ -
								\$ -
Sub Total								\$ -

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total
								1	\$ -
								1	\$ -
								1	\$ -
								1	\$ -
Sub Total									\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FractionIncluded	Sub Total
								\$ -
Sub Total								\$ -

University University of Seville
System Steering
Assembly Steering Wheel Asmb.
Part STEERING WHEEL
P/N Base 61001
Suffix AA
Details Carbon Fiber, 4 plies

Car # 1

Part Cost \$ 13,60
Qty 1
Extended Cost \$ 13,60

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
2	Carbon Fiber, 1 ply		\$ 200,00	0,0097	kg				0,0463			4	\$ 7,76
3	Honeycomb, Nomex	Core	\$ 125,00	0,0034	kg							1	\$ 0,43
												Sub Total	\$ 8,185

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
1	Lamination, Manual	both halves	\$ 35,00	m2	0,0463	repeat	2	\$ 3,24	
2	Resin application, Manual	both halves	\$ 5,00	m2	0,0463	repeat	2	\$ 0,46	
3	Cure, room temperature	both halves	\$ 10,00	m2	0,0463	repeat	2	\$ 0,93	
4	Brush apply	Glue halves	\$ 0,02	cm2	25,00			\$ 0,50	
5	Assemble, 1 kg, Line-on-Line	Assemble halves	\$ 0,13	unit	1			\$ 0,13	
								Sub Total	\$ 5,26

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
									\$ -	
									\$ -	
									\$ -	
									\$ -	
									Sub Total	\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
	Lamination - Comp. Tool		\$ 10.000,00	m2	0,0463	3000	1	\$ 0,15	
								Sub Total	\$ 0,15

University University of Seville
System Steering
Assembly Steering Wheel Asmb.
Part **STEERING WHEEL QUICK RELEASE**
P/N Base 61002
Suffix AA
Details

Car # 1

Part Cost \$ 8,18
Qty 1
Extended Cost \$ 8,18

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
1	Aluminum, Premium	Handle	\$ 4,20	0,221	kg							1	\$ 0,93
2	Steel, Stainless	Spline	\$ 2,25	0,203	kg							1	\$ 0,46
												Sub Total	\$ 1,385

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
1	Machining Setup, Install and remove	Two processes	\$ 1,30	unit	2			\$ 2,60	
2	Machining	Machine Handle	\$ 0,04	cm3	52,43			\$ 2,10	
3	Broach, Internal	Machine Splines	\$ 0,50	cm	3,81			\$ 1,91	
								Sub Total	\$ 6,60

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
	Retaining Ring, External	Collar	\$ 0,19	31,75	mm			1	\$ 0,19	
									Sub Total	\$ 0,19

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncid	Sub Total	
								\$ -	
								Sub Total	\$ -

University University of Seville **Car #** 1
System Steering
Assembly STEERING SHAFT ASMB.
P/N Base A6200
Suffix AA
Details

Asm Cost \$ 49,88
Qty 1
Extended Cost \$ 49,88

ItemOrder	Part	Part Cost	Quantity	Sub Total
1	Steering Shaft	\$ 7,80	1	\$ 7,797
2	Steering Shaft Joints	\$ 42,08	1	\$ 42,080
			Sub Total	\$ 49,877

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
												1	\$ -
												Sub Total	\$ -

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total
								\$ -
							Sub Total	\$ -

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total
									\$ -
								Sub Total	\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FractionIncluded	Sub Total
								\$ -
							Sub Total	\$ -

University University of Seville
System Steering
Assembly Steering Shaft Asmb.
Part STEERING SHAFT
P/N Base 62001
Suffix AA
Details Collapsible

Car # 1

Part Cost \$ 7,80
Qty 1
Extended Cost \$ 7,80

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area /m2	Length	Density	Quantity	Sub Total
1	Steel, Alloy	upper shaft	\$ 2,25	38,1	mm	1,0	mm	tube	1,17E-04	200	7.850,00	1	\$ 0,41
2	Steel, Alloy	lower shaft	\$ 2,25	38,1	mm	1,0	mm	tube	1,17E-04	400	7.850,00	1	\$ 0,82
Sub Total													\$ 1,235

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total
1	Tube end preparation for welding		\$ 0,75	end	4			\$ 3,00
2	Weld - round tubing	Weld tube to joint and collar	\$ 0,38	cm	7,62			\$ 2,90
Sub Total								\$ 5,90

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total
									\$ -
Sub Total									\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total
	Welding Fixture		\$ 500,00	point	4	3000	1	\$ 0,67
Sub Total								\$ 0,67

University University of Seville
System Steering
Assembly Steering Shaft Asmb.
Part **STEERING SHAFT JOINTS**
P/N Base 62002
Suffix AA
Details Set of two

Car # 1

Part Cost \$ 42,08
Qty 1
Extended Cost \$ 42,08

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
	Steering Column Universal Joint		\$ 20,00									2	\$ 40,00
												Sub Total	\$ 40,000

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
	Ratchet <= 6.35 mm	tighten bolts	\$ 0,50	unit	2			\$ 1,00	
								Sub Total	\$ 1,00

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
1	Bolt, Grade AN	Fastening	\$ 0,31	6,35	mm	34,29	mm	2	\$ 0,62	
2	Nut, Grade AN	Fastening	\$ 0,21	6,35	mm			2	\$ 0,42	
5	Washer, Grade AN	Fastening	\$ 0,02	7,95	mm			2	\$ 0,04	
									Sub Total	\$ 1,08

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
								Sub Total	0

University University of Seville **Car #** 1
System Steering
Assembly STEERING RACK ASMB.
P/N Base A6300
Suffix AA
Details

Asm Cost \$ 32,66
Qty 1
Extended Cost \$ 32,66

ItemOrder	Part	Part Cost	Quantity	Sub Total
1	Pinion Gear	\$ 6,38	1	\$ 6,379
2	Rack Gear	\$ 4,42	1	\$ 4,423
3	Steering Rack	\$ 8,84	1	\$ 8,844
4	Housing	\$ 13,01	1	\$ 13,010
			Sub Total	\$ 32,655

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
												1	\$ -
												1	\$ -
												Sub Total	\$ -

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
								\$ -	
								\$ -	
								\$ -	
								\$ -	
								Sub Total	\$ -

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
								1	\$ -	
								1	\$ -	
								1	\$ -	
								1	\$ -	
									Sub Total	\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	Fract Incl	Sub Total	
								\$ -	
								Sub Total	\$ -

University University of Seville
System Steering
Assembly Steering Rack Asmb.
Part PINION GEAR
P/N Base 63001
Suffix AA
Details

Car # 1

Part Cost \$ 6,38
Qty 1
Extended Cost \$ 6,38

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
	Steel, Stainless		\$ 2,25	0,275	kg								\$ 0,62
												Sub Total	\$ 0,619

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
1	Machining Setup, Install and remove		\$ 1,30	unit	1			\$ 1,30	
2	Machining		\$ 0,04	cm3	15			\$ 0,60	
3	Assemble, 1 kg, Line-on-Line		\$ 0,13	unit	2			\$ 0,26	
4	Wrench <= 25.4 mm		\$ 1,50	unit	2			\$ 3,00	
								Sub Total	\$ 5,16

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
	Bolt, Grade AN	Fastener	\$ 0,30	8	mm	10	mm	2	\$ 0,60	
									Sub Total	\$ 0,60

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
								Sub Total	\$ -

University University of Seville
System Steering
Assembly Steering Rack Asmb.
Part RACK GEAR
P/N Base 63002
Suffix AA
Details

Car # 1

Part Cost \$ 4,42
Qty 1
Extended Cost \$ 4,42

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
	Steel, Stainless		\$ 2,25	0,579	kg							1	\$ 1,30
												Sub Total	\$ 1,303

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
1	Machining setup, install and remove		\$ 1,30	unit	1			\$ 1,30	
2	Machining		\$ 0,04	cm3	15			\$ 0,60	
3	Assemble, 1 kg, loose	mount on rack	\$ 0,06	unit	2			\$ 0,12	
4	Power Tool <= 25.4 mm	tighten bolts	\$ 0,25	unit	2			\$ 0,50	
								Sub Total	\$ 2,52

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
	Bolt, Grade AN	Fasten to rack	\$ 0,30	8	mm	10	mm	2	\$ 0,60	
									Sub Total	\$ 0,60

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncid	Sub Total	
								Sub Total	0

University University of Seville
System Steering
Assembly Steering Rack Asmb.
Part **STEERING RACK**
P/N Base 63003
Suffix AA
Details

Car # 1

Part Cost \$ 8,84
Qty 1
Extended Cost \$ 8,84

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
	Aluminum, Premium		\$ 4,20	0,388	kg								\$ 1,63
												Sub Total	\$ 1,630

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
1	Machining setup, install and remove		\$ 1,30	unit	1			\$ 1,30	
2	Machining	Tie Rod mounts	\$ 0,04	cm3	35,82			\$ 1,43	
3	Machining	Rack Gear cavity	\$ 0,04	cm3	59,53			\$ 2,38	
4	Drilled hole < 25.4 mm dia.		\$ 0,35	hole	2			\$ 0,70	
5	Tap hole		\$ 0,35	hole	4			\$ 1,40	
								Sub Total	\$ 7,21

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
									\$ -	
									Sub Total	\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
								Sub Total	\$ -

University University of Seville
System Steering
Assembly Steering Rack Asmb.
Part HOUSING
P/N Base 63004
Suffix AA
Details

Car # 1

Part Cost \$ 13,01
Qty 1
Extended Cost \$ 13,01

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
1	Aluminium, Normal		\$ 4,20	30	mm	1,5	mm	tube	1,34E-04	280,00	2.768,30		\$ 0,44
2	Brass	Bushings	\$ 2,20	38	mm			circle	1,13E-03	25,00	5.876,00	2,00	\$ 0,73
												Sub Total	\$ 1,170

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
1	Machining setup, install and remove	two processes	\$ 1,30	unit	2			\$ 2,60	
2	Machining	aluminium	\$ 0,04	cm3	160,32			\$ 6,41	
3	Machining	brass	\$ 0,04	cm3	70,69			\$ 2,83	
								Sub Total	\$ 11,84

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
									\$ -	
									Sub Total	\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
								Sub Total	\$ -

University University of Seville
System Steering
Assembly TIE ROD ASMB.
P/N Base A6400
Suffix AA
Details

Car # 1

Asm Cost \$ 50,41

Qty 1

Extended Cost \$ 50,41

ItemOrder	Part	Part Cost	Quantity	Sub Total
1	Tie Rod	\$ 3,73	2	\$ 7,454
2	Rod End	\$ 5,94	4	\$ 23,760
Sub Total				\$ 31,214

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
												1	\$ -
Sub Total												\$ -	

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total
1	Assemble, 1 kg, Loose	Assemble Tie Rod	\$ 0,06	unit	8			\$ 0,48
2	Wrench <= 25.4 mm	Tighten all Nuts	\$ 1,50	unit	8			\$ 12,00
Sub Total								\$ 12,48

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total
1	Bolt, Grade AN	attach to suspension	0,31	6,35	mm	35,56	mm	8	\$ 2,48
2	Nut, Grade AN	attach to suspension	0,16	6,35	mm			16	\$ 2,56
3	Washer, Grade AN	attach to suspension	0,21	6,35	mm			8	\$ 1,68
Sub Total									\$ 6,72

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	Fract Incl	Sub Total
								\$ -
Sub Total								\$ -

University University of Seville
System Steering
Assembly Tie Rod Asmb.
Part TIE ROD
P/N Base 64001
Suffix AA
Details

Car # 1

Part Cost \$ 3,73
Qty 2
Extended Cost \$ 7,45

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
1	Steel, Alloy	Rod Tubing	\$ 2,25	25	mm	2	mm	tube	1,45E-04	400,00	7.850,00	1	\$ 1,02
2	Steel, Mild	Rod Inserts	\$ 2,25	21	mm			circle	3,46E-04	25,40	7.850,00	2	\$ 0,31
												Sub Total	\$ 1,332

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
1	Machining setup, install and remove		\$ 1,30	unit	1			\$ 1,30	
2	Weld	Weld inserts to ends	\$ 0,15	cm	5,08			\$ 0,76	
								Sub Total	\$ 2,06

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
									\$ -	
									Sub Total	\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
	Welding Fixture		\$ 500,00	point	2	3000	1	\$ 0,33	
								Sub Total	\$ 0,33

University University of Seville
System Steering
Assembly Tie Rod Asmb.
Part ROD ENDS
P/N Base 64002
Suffix AA
Details

Car # 1

Part Cost \$ 5,94
Qty 4
Extended Cost \$ 23,76

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
	Rod End, Industrial		\$ 4,44	12,7	mm							1	\$ 4,44
												Sub Total	\$ 4,440

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
	Wrench <= 25.4 mm		\$ 1,50	unit	1			\$ 1,50	
								Sub Total	\$ 1,50

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
								1	\$ -	
									Sub Total	\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
								Sub Total	0

University	University of Seville	Car #	1
System	Suspension		
Assembly	FRONT SUSPENSION		
P/N Base	A7100		
Suffix	AA		
Details			

Asm Cost	\$ 707,83
Qty	1
Extended Cost	\$ 707,83

ItemOrder	Part	Part Cost	Quantity	Sub Total
1	Lower A-Arm	\$ 23,33	2	\$ 46,666
2	Upper A-Arm	\$ 23,15	2	\$ 46,306
3	Push Rod	\$ 18,32	2	\$ 36,648
4	Bell Crank	\$ 24,80	2	\$ 49,606
5	Spring	\$ 25,06	2	\$ 50,120
6	Damper	\$ 239,24	2	\$ 478,480
Sub Total				\$ 707,827

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
													\$ -
Sub Total												\$ -	

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total
								\$ -
Sub Total								0

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total
									\$ -
Sub Total									\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FractionIncluded	Sub Total
								\$ -
Sub Total								\$ -

University University of Seville
System Suspension
Assembly Front Suspension
Part LOWER A-ARM
P/N Base 71001
Suffix AA
Details

Car # 1

Part Cost \$ 23,33

Qty 2

Extended Cost \$ 46,67

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
1	Steel, Mild	Tubing	\$ 2,25	0,3	kg							2	\$ 0,68
2	Steel, Mild	Inserts	\$ 2,25	0,024	kg							2	\$ 0,05
3	Rod End, Industrial		\$ 2,02	6,35	mm							3	\$ 6,06
												Sub Total	\$ 6,789

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
1	Machining setup, install and remove	cut and drill	\$ 1,30		2			\$ 2,60	
2	Tube cut		\$ 0,15	cm	6,00			\$ 0,90	
3	Tube end preparation for welding		\$ 0,75	end	2			\$ 1,50	
4	Weld - Round Tubing	Arms	\$ 0,38	cm	6,00			\$ 2,25	
5	Weld	Inserts	\$ 0,15	cm	7,50			\$ 1,13	
6	Drilled holes < 25.4 mm dia.	Inserts	\$ 0,35	hole	3			\$ 1,05	
7	Tap holes	Inserts	\$ 0,35	hole	3			\$ 1,05	
8	Assemble, 1 kg, Loose	align with frame tabs	\$ 0,06	unit	1			\$ 0,06	
9	Wrench <= 6.35 mm	tighten bolts	\$ 1,00	unit	3			\$ 3,00	
10	Reaction Tool <= 6.35 mm	tighten bolts	\$ 0,25	unit	3			\$ 0,75	
								Sub Total	\$ 14,29

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
1	Bolt, Grade AN		\$ 0,29	6,35	mm	31,75	mm	3	\$ 0,87	
2	Nut, Grade AN		\$ 0,21	6,35	mm			3	\$ 0,63	
3	Washer, Grade AN		\$ 0,02	6,35	mm			6	\$ 0,09	
									Sub Total	\$ 1,59

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
	Welding Fixture		\$ 500,00	point	4	3000	1	\$ 0,67	
								Sub Total	\$ 0,67

University University of Seville
System Suspension
Assembly Front Suspension
Part UPPER A-ARM
P/N Base 71002
Suffix AA
Details

Car # 1

Part Cost \$ 23,15

Qty 2

Extended Cost \$ 46,31

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
1	Steel, Mild	Tubing	\$ 2,25	0,22	kg							2	\$ 0,50
2	Steel, Mild	Inserts	\$ 2,25	0,024	kg							2	\$ 0,05
3	Rod End, Industrial		\$ 2,02	6,35	mm							3	\$ 6,06
												Sub Total	\$ 6,609

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
1	Machining setup, install and remove	cut and drill	\$ 1,30		2			\$ 2,60	
2	Tube cut		\$ 0,15	cm	6,00			\$ 0,90	
3	Tube end preparation for welding		\$ 0,75	end	2			\$ 1,50	
4	Weld - Round Tubing	Arms	\$ 0,38	cm	6,00			\$ 2,25	
5	Weld	Inserts	\$ 0,15	cm	7,50			\$ 1,13	
6	Drilled holes < 25.4 mm dia.	Inserts	\$ 0,35	hole	3			\$ 1,05	
7	Tap holes	Inserts	\$ 0,35	hole	3			\$ 1,05	
8	Assemble, 1 kg, Loose	align with frame tabs	\$ 0,06	unit	1			\$ 0,06	
9	Wrench <= 6.35 mm	tighten bolts	\$ 1,00	unit	3			\$ 3,00	
10	Reaction Tool <= 6.35 mm	tighten bolts	\$ 0,25	unit	3			\$ 0,75	
								Sub Total	\$ 14,29

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
1	Bolt, Grade AN		\$ 0,29	6,35	mm	31,75	mm	3	\$ 0,87	
2	Nut, Grade AN		\$ 0,21	6,35	mm			3	\$ 0,63	
3	Washer, Grade AN		\$ 0,02	6,35	mm			6	\$ 0,09	
									Sub Total	\$ 1,59

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
	Welding Fixture		\$ 500,00	point	4	3000	1	\$ 0,67	
								Sub Total	\$ 0,67

University University of Seville
System Suspension
Assembly Front Suspension
Part PUSH ROD
P/N Base 71003
Suffix AA
Details

Car # 1

Part Cost \$ 18,32
Qty 2
Extended Cost \$ 36,65

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
1	Steel, Mild	tubing	\$ 2,25	30	mm	2,5	mm	tube	2,16E-04	312,00	7.850,00	1	\$ 1,19
2	Steel, Mild	inserts	\$ 2,25	25	mm			circle	4,91E-04	25,40	7.850,00	2	\$ 0,44
3	Rod End, Industrial		\$ 2,02	6,35	mm							2	\$ 4,04
Sub Total													\$ 5,671

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total
1	Weld	inserts	\$ 0,15	cm	50,8			\$ 7,62
2	Machining setup, install an remove		\$ 1,30		1			\$ 1,30
3	drilled holes < 25,4 mm dia.		\$ 0,35	hole	2			\$ 0,70
4	tap holes		\$ 0,35	hole	2			\$ 0,70
5	Wrench <= 6.35 mm	fasten rod ends	\$ 1,00	unit	2			\$ 2,00
Sub Total								\$ 12,32

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total
									\$ -
Sub Total									\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total
	Welding Fixture		\$ 500,00	point	2	3000	1	\$ 0,33
Sub Total								0,33333333

University University of Seville
System Suspension
Assembly Front Suspension
Part BELL CRANK
P/N Base 71004
Suffix AA
Details

Car # 1

Part Cost \$ 24,80
Qty 2
Extended Cost \$ 49,61

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
1	Aluminium, Premium		\$ 4,20	130	mm	55	mm	Rectangle	7,15E-03	50,00	2.768,30	2	\$ 8,31
2	Bearing, Ball, Deep Groove		\$ 3,58									2	\$ 7,16
												Sub Total	\$ 15,473

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
	Machining setup, install and remove		\$ 1,30	unit	1			\$ 1,30	
	Machining		\$ 0,04	cm3	49			\$ 1,96	
	Ratchet <= 25.4 mm		\$ 0,75	unit	3			\$ 2,25	
	Reaction Tool <= 25.4 mm		\$ 0,25	unit	3			\$ 0,75	
								Sub Total	\$ 6,26

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
1	Bolt, Grade AN	Fasten anti-roll bar, damper & push rod	\$ 0,43	6,35	mm	55	mm	3	\$ 1,29	
2	Bolt, Grade AN	Attach to frame	\$ 0,94	6,35	mm	101,6	mm	1	\$ 0,94	
3	Nut, Grade AN	all bolts	\$ 0,21	6,35	mm			4	\$ 0,84	
									Sub Total	\$ 3,07

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
								Sub Total	0

University University of Seville
System Suspension
Assembly Front Suspension
Part SPRING
P/N Base 71005
Suffix AA
Details

Car # 1

Part Cost \$ 25,06
Qty 2
Extended Cost \$ 50,12

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
	Suspension Springs, Coil Spring, Steel		\$ 25,00									1	\$ 25,00
												Sub Total	\$ 25,000

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
1	Assemble, 1 kg, Loose	mount	\$ 0,06	unit	1			\$ 0,06	
								Sub Total	\$ 0,06

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
									\$ -	
									Sub Total	\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
								Sub Total	0

University University of Seville
System Suspension
Assembly Front Suspension
Part DAMPER
P/N Base 71006
Suffix AA
Details

Car # 1

Part Cost \$ 239,24
Qty 2
Extended Cost \$ 478,48

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
	Damper, Penske 7800-Non-Adjustable Quarter Midget		\$ 117,50									2,00E+00	\$ 235,00
												Sub Total	\$ 235,000

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
1	Wrench <=25.4 mm		\$ 1,50	unit	2			\$ 3,00	
2	Reaction Tool <= 25.4 mm		\$ 0,25	unit	2			\$ 0,50	
								Sub Total	\$ 3,00

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
1	Bolt, Grade 10.9 (SAE 8)		\$ 0,43	12,7	mm	25,4	mm	2	\$ 0,86	
2	Nut, Grade 10.9 (SAE 8)		\$ 0,15	12,7	mm			2	\$ 0,30	
3	Washer, Grade 10.9 (SAE 8)		\$ 0,02	12,7	mm			4	\$ 0,08	
									Sub Total	\$ 1,24

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
								Sub Total	0

University	University of Seville	Car #	1
System	Suspension		
Assembly	REAR SUSPENSION		
P/N Base	A7100		
Suffix	AA		
Details			

Asm Cost	\$ 743,86
Qty	1
Extended Cost	\$ 743,86

ItemOrder	Part	Part Cost	Quantity	Sub Total
1	Lower A-Arm	\$ 23,42	2	\$ 46,846
2	Upper A-Arm	\$ 23,13	2	\$ 46,261
3	Pull Rod	\$ 18,32	2	\$ 36,648
4	Bell Crank	\$ 24,80	2	\$ 49,606
5	Spring	\$ 25,06	2	\$ 50,120
6	Damper	\$ 239,24	2	\$ 478,480
7	Tracking Link	\$ 17,95	2	\$ 35,898
Sub Total				\$ 743,860

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
													\$ -
Sub Total												\$ -	

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total
								\$ -
Sub Total								0

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total
									\$ -
Sub Total									\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FractionIncluded	Sub Total
								\$ -
Sub Total								\$ -

University University of Seville
System Suspension
Assembly Rear Suspension
Part LOWER A-ARM
P/N Base 71001
Suffix AA
Details

Car # 1

Part Cost \$ 23,42

Qty 2

Extended Cost \$ 46,85

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
1	Steel, Mild	Tubing	\$ 2,25	0,34	kg							2	\$ 0,77
2	Steel, Mild	Inserts	\$ 2,25	0,024	kg							2	\$ 0,05
3	Rod End, Industrial		\$ 2,02	6,35	mm							3	\$ 6,06
												Sub Total	\$ 6,879

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
1	Machining setup, install and remove	cut and drill	\$ 1,30		2			\$ 2,60	
2	Tube cut		\$ 0,15	cm	6,00			\$ 0,90	
3	Tube end preparation for welding		\$ 0,75	end	2			\$ 1,50	
4	Weld - Round Tubing	Arms	\$ 0,38	cm	6,00			\$ 2,25	
5	Weld	Inserts	\$ 0,15	cm	7,50			\$ 1,13	
6	Drilled holes < 25.4 mm dia.	Inserts	\$ 0,35	hole	3			\$ 1,05	
7	Tap holes	Inserts	\$ 0,35	hole	3			\$ 1,05	
8	Assemble, 1 kg, Loose	align with frame tabs	\$ 0,06	unit	1			\$ 0,06	
9	Wrench <= 6.35 mm	tighten bolts	\$ 1,00	unit	3			\$ 3,00	
10	Reaction Tool <= 6.35 mm	tighten bolts	\$ 0,25	unit	3			\$ 0,75	
								Sub Total	\$ 14,29

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
1	Bolt, Grade AN		\$ 0,29	6,35	mm	31,75	mm	3	\$ 0,87	
2	Nut, Grade AN		\$ 0,21	6,35	mm			3	\$ 0,63	
3	Washer, Grade AN		\$ 0,02	6,35	mm			6	\$ 0,09	
									Sub Total	\$ 1,59

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
	Welding Fixture		\$ 500,00	point	4	3000	1	\$ 0,67	
								Sub Total	\$ 0,67

University University of Seville
System Suspension
Assembly Rear Suspension
Part UPPER A-ARM
P/N Base 71002
Suffix AA
Details

Car # 1

Part Cost \$ 23,13

Qty 2

Extended Cost \$ 46,26

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
1	Steel, Mild	Tubing	\$ 2,25	0,21	kg							2	\$ 0,47
2	Steel, Mild	Inserts	\$ 2,25	0,024	kg							2	\$ 0,05
3	Rod End, Industrial		\$ 2,02	6,35	mm							3	\$ 6,06
												Sub Total	\$ 6,587

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
1	Machining setup, install and remove	cut and drill	\$ 1,30		2			\$ 2,60	
2	Tube cut		\$ 0,15	cm	6,00			\$ 0,90	
3	Tube end preparation for welding		\$ 0,75	end	2			\$ 1,50	
4	Weld - Round Tubing	Arms	\$ 0,38	cm	6,00			\$ 2,25	
5	Weld	Inserts	\$ 0,15	cm	7,50			\$ 1,13	
6	Drilled holes < 25.4 mm dia.	Inserts	\$ 0,35	hole	3			\$ 1,05	
7	Tap holes	Inserts	\$ 0,35	hole	3			\$ 1,05	
8	Assemble, 1 kg, Loose	align with frame tabs	\$ 0,06	unit	1			\$ 0,06	
9	Wrench <= 6.35 mm	tighten bolts	\$ 1,00	unit	3			\$ 3,00	
10	Reaction Tool <= 6.35 mm	tighten bolts	\$ 0,25	unit	3			\$ 0,75	
								Sub Total	\$ 14,29

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
1	Bolt, Grade AN		\$ 0,29	6,35	mm	31,75	mm	3	\$ 0,87	
2	Nut, Grade AN		\$ 0,21	6,35	mm			3	\$ 0,63	
3	Washer, Grade AN		\$ 0,02	6,35	mm			6	\$ 0,09	
									Sub Total	\$ 1,59

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
	Welding Fixture		\$ 500,00	point	4	3000	1	\$ 0,67	
								Sub Total	\$ 0,67

University University of Seville
System Suspension
Assembly Rear Suspension
Part PUSH ROD
P/N Base 71003
Suffix AA
Details

Car # 1

Part Cost \$ 18,32
Qty 2
Extended Cost \$ 36,65

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
1	Steel, Mild	tubing	\$ 2,25	30	mm	2,5	mm	tube	2,16E-04	312,00	7.850,00	1	\$ 1,19
2	Steel, Mild	inserts	\$ 2,25	25	mm			circle	4,91E-04	25,40	7.850,00	2	\$ 0,44
3	Rod End, Industrial		\$ 2,02	6,35	mm							2	\$ 4,04
												Sub Total	\$ 5,671

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total
1	Weld	inserts into rod	\$ 0,15	cm	50,8			\$ 7,62
2	Machining setup, install an remove		\$ 1,30		1			\$ 1,30
3	drilled holes < 25,4 mm dia.	inserts	\$ 0,35	hole	2			\$ 0,70
4	tap holes	inserts	\$ 0,35	hole	2			\$ 0,70
5	Wrench <= 6.35 mm	fasten rod ends	\$ 1,00	unit	2			\$ 2,00
Sub Total								\$ 12,32

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total
									\$ -
Sub Total									\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total
	Welding Fixture		\$ 500,00	point	2	3000	1	\$ 0,33
Sub Total								0,33333333

University University of Seville
System Suspension
Assembly Rear Suspension
Part BELL CRANK
P/N Base 71004
Suffix AA
Details

Car # 1

Part Cost \$ 24,80
Qty 2
Extended Cost \$ 49,61

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
1	Aluminium, Premium		\$ 4,20	130	mm	55	mm	Rectangle	7,15E-03	50,00	2.768,30	2	\$ 8,31
2	Bearing, Ball, Deep Groove		\$ 3,58									2	\$ 7,16
												Sub Total	\$ 15,473

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
	Machining setup, install and remove		\$ 1,30	unit	1			\$ 1,30	
	Machining		\$ 0,04	cm3	49			\$ 1,96	
	Ratchet <= 25.4 mm		\$ 0,75	unit	3			\$ 2,25	
	Reaction Tool <= 25.4 mm		\$ 0,25	unit	3			\$ 0,75	
								Sub Total	\$ 6,26

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
1	Bolt, Grade AN	Fasten anti-roll bar, damper & push rod	\$ 0,43	6,35	mm	55	mm	3	\$ 1,29	
2	Bolt, Grade AN	Attach to frame	\$ 0,94	6,35	mm	101,6	mm	1	\$ 0,94	
3	Nut, Grade AN	all bolts	\$ 0,21	6,35	mm			4	\$ 0,84	
									Sub Total	\$ 3,07

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
								Sub Total	0

University University of Seville
System Suspension
Assembly Rear Suspension
Part SPRING
P/N Base 71005
Suffix AA
Details

Car # 1

Part Cost \$ 25,06
Qty 2
Extended Cost \$ 50,12

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
	Suspension Springs, Coil Spring, Steel		\$ 25,00									1	\$ 25,00
												Sub Total	\$ 25,000

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
1	Assemble, 1 kg, Loose	mount	\$ 0,06	unit	1			\$ 0,06	
								Sub Total	\$ 0,06

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
									\$ -	
									Sub Total	\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
								Sub Total	0

University University of Seville
System Suspension
Assembly Rear Suspension
Part DAMPER
P/N Base 71006
Suffix AA
Details

Car # 1

Part Cost \$ 239,24
Qty 2
Extended Cost \$ 478,48

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
	Damper, Penske 7800-Non-Adjustable Quarter Midget		\$ 117,50									2,00E+00	\$ 235,00
												Sub Total	\$ 235,000

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
1	Wrench <=25.4 mm		\$ 1,50	unit	2			\$ 3,00	
2	Reaction Tool <= 25.4 mm		\$ 0,25	unit	2			\$ 0,50	
								Sub Total	\$ 3,00

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
1	Bolt, Grade 10.9 (SAE 8)		\$ 0,43	12,7	mm	25,4	mm	2	\$ 0,86	
2	Nut, Grade 10.9 (SAE 8)		\$ 0,15	12,7	mm			2	\$ 0,30	
3	Washer, Grade 10.9 (SAE 8)		\$ 0,02	12,7	mm			4	\$ 0,08	
									Sub Total	\$ 1,24

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
								Sub Total	0

University University of Seville
System Suspension
Assembly Rear Suspension
Part TRACKING LINK
P/N Base 72007
Suffix AA
Details

Car # 1

Part Cost \$ 17,95
Qty 2
Extended Cost \$ 35,90

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
1	Steel, Mild	Tubing	\$ 2,25	25	mm	2,5	mm	tube	1,77E-04	312,00	7850,00	1	\$ 0,97
2	Steel, Mild	Inserts	\$ 2,25	20	mm			circle	3,14E-04	25,40	7850,00	2	\$ 0,28
3	Rod End, Industrial		\$ 2,02	6,35	mm							2	\$ 4,04
												Sub Total	\$ 5,296

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
1	Weld	inserts to rod	\$ 0,15	cm	50,8			\$ 7,62	
2	Machining setup, install an remove		\$ 1,30		1			\$ 1,30	
3	drilled holes < 25,4 mm dia.	inserts	\$ 0,35	hole	2			\$ 0,70	
4	tap holes	inserts	\$ 0,35	hole	2			\$ 0,70	
5	Wrench <= 6.35 mm	fasten rod ends	\$ 1,00	unit	2			\$ 2,00	
								Sub Total	\$ 12,32

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
									\$ -	
									Sub Total	\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
	Welding Fixture		\$ 500,00	point	2	3000	1	\$ 0,33	
								Sub Total	\$ 0,33

University University of Seville **Car #** 1
System Suspension
Assembly UPRIGHT ASMB.
P/N Base A7300
Suffix AA
Details

Asm Cost \$ 431,38
Qty 1
Extended Cost \$ 431,38

ItemOrder	Part	Part Cost	Quantity	Sub Total
1	Front Upright	\$ 110,48	2	\$ 220,964
2	Rear Upright	\$ 105,21	2	\$ 210,418
			Sub Total	\$ 431,382

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
													\$ -
												Sub Total	\$ -

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
								\$ -	
								Sub Total	0

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
									\$ -	
									Sub Total	\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FractionIncluded	Sub Total	
								\$ -	
								Sub Total	\$ -

University University of Seville
System Suspension
Assembly Upright Asmb.
Part FRONT UPRIGHT
P/N Base 73001
Suffix AA
Details

Car # 1

Part Cost \$ 110,48

Qty 2

Extended Cost \$ 220,96

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
1	Aluminium, Premium	upright	\$ 4,20	170	mm	68	mm	rectangle	1,16E-02	218,00	2.768,30	1	\$ 29,30
2	Aluminium, Premium	steering knuckle	\$ 4,20	40	mm	25	mm	rectangle	1,00E-03	50,00	2.768,30	1	\$ 0,58
												Sub Total	\$ 29,882

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
1	Machining setup, install and remove	one for each piece	\$ 1,30		2			\$ 2,60	
2	Machining		\$ 0,04	cm3	1540,00			\$ 61,60	
3	Drilled holes < 25.4 mm dia.	holes for bolts	\$ 0,35	hole	7			\$ 2,45	
4	Tap holes		\$ 0,35	hole	7			\$ 2,45	
5	Wrench <= 25.4 mm	tighten bolts	\$ 1,50	unit	7			\$ 10,50	
6	Reaction Tool <= 25.4 mm	tighten bolts	\$ 0,25	unit	4			\$ 1,00	
								Sub Total	\$ 80,60

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
									\$ -	
									Sub Total	\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
								Sub Total	0

University University of Seville
System Suspension
Assembly Upright Asmb.
Part REAR UPRIGHT
P/N Base 73001
Suffix AA
Details

Car # 1

Part Cost \$ 105,21

Qty 2

Extended Cost \$ 210,42

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
1	Aluminium, Premium	upright	\$ 4,20	160	mm	62	mm	rectangle	9,92E-03	218,00	2.768,30	1	\$ 25,14
2	Aluminium, Premium	steering knuckle	\$ 4,20	40	mm	25	mm	rectangle	1,00E-03	40,00	2.768,30	1	\$ 0,47
												Sub Total	\$ 25,609

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
1	Machining setup, install and remove	one for each piece	\$ 1,30		2			\$ 2,60	
2	Machining		\$ 0,04	cm3	1515,00			\$ 60,60	
3	Drilled holes < 25.4 mm dia.	holes for bolts	\$ 0,35	hole	7			\$ 2,45	
4	Tap holes		\$ 0,35	hole	7			\$ 2,45	
5	Wrench <= 25.4 mm	tighten bolts	\$ 1,50	unit	7			\$ 10,50	
6	Reaction Tool <= 25.4 mm	tighten bolts	\$ 0,25	unit	4			\$ 1,00	
								Sub Total	\$ 79,60

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
									\$ -	
									Sub Total	\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
								Sub Total	0

University University of Seville **Car #** 1
System Suspension
Assembly FRONT ANTI-ROLL BAR ASMB.
P/N Base A7400
Suffix AA
Details

Asm Cost \$ 59,87
Qty 1
Extended Cost \$ 59,87

ItemOrder	Part	Part Cost	Quantity	Sub Total
1	Anti-Roll Bar	\$ 4,42	1	\$ 4,425
2	Bar Blades	\$ 3,30	2	\$ 6,597
3	Bar Mounts	\$ 24,42	2	\$ 48,850
Sub Total				\$ 59,872

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
													\$ -
Sub Total													\$ -

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total
								\$ -
Sub Total								0

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total
									\$ -
Sub Total									\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FractionIncluded	Sub Total
								\$ -
Sub Total								\$ -

University University of Seville **Car #** 1
System Suspension
Assembly Front Anti-Roll Bar Asmb.
Part ANTI-ROLL BAR
P/N Base 74001
Suffix AA
Details

Part Cost \$ 4,42
Qty 1
Extended Cost \$ 4,42

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
	Steel, Alloy		\$ 2,25	0,328	kg								\$ 0,74
												Sub Total	\$ 0,738

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
1	Tube end preparation for tubing		\$ 0,75	end	2			\$ 1,50	
2	Weld - Round Tubing		\$ 0,38	cm	4			\$ 1,52	
								Sub Total	\$ 3,02

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
									\$ -	
									Sub Total	\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
	Welding Fixture		\$ 500,00	point	4	3000	1	\$ 0,67	
								Sub Total	\$ 0,67

University University of Seville
System Suspension
Assembly Front Anti-Roll Bar Asmb.
Part BAR BLADES
P/N Base 74002
Suffix AA
Details

Car # 1

Part Cost \$ 3,30
Qty 2
Extended Cost \$ 6,60

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
	Steel, Alloy		\$ 2,25	0,71	kg								\$ 1,60
												Sub Total	\$ 1,598

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
	Machining Setup, Install and remove		\$ 1,30	unit	1			\$ 1,30	
	Machining		\$ 0,04	cm3	7,03			\$ 0,28	
	Assemble, 1 kg, Loose	mount on frame	\$ 0,06	unit	2			\$ 0,12	
								Sub Total	\$ 1,70

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
									\$ -	
									Sub Total	\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
								Sub Total	0

University University of Seville
System Suspension
Assembly Front Anti-Roll Bar Asmb.
Part **BAR MOUNTS**
P/N Base 74003
Suffix AA
Details

Car # 1

Part Cost \$ 24,42
Qty 2
Extended Cost \$ 48,85

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
1	Plastic, POM	Delrin stock	\$ 3,30	0,003	kg								\$ 0,01
2	Bearing, Spherical		\$ 9,98	12,88	mm							2	\$ 19,96
												Sub Total	\$ 19,970

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
1	Machining Setup, Install and remove		\$ 1,30	unit	1			\$ 1,30	
2	Machining		\$ 0,04	cm3	3,372			\$ 0,13	
3	Drilled holes < 25.4 mm dia.		\$ 0,35	hole	2			\$ 0,70	
4	Ratchet <= 25.4 mm		\$ 0,75	unit	2			\$ 1,50	
5	Assemble, 1 kg, Loose	mount on frame	\$ 0,06	unit	4			\$ 0,24	
								Sub Total	\$ 3,87

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
1	Bolt, Grade AN		0,11	4,826	mm	12,7	mm	2	\$ 0,22	
2	Nut, Grade AN		0,16	4,826	mm			2	\$ 0,32	
3	Washer, Grade AN		0,01	4,826	mm			4	\$ 0,04	
									Sub Total	\$ 0,58

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
								Sub Total	0

University University of Seville **Car #** 1
System Suspension
Assembly REAR ANTI-ROLL BAR ASMB.
P/N Base A7500
Suffix AA
Details

Asm Cost \$ 61,43
Qty 1
Extended Cost \$ 61,43

ItemOrder	Part	Part Cost	Quantity	Sub Total
1	Anti-Roll Bar	\$ 4,42	1	\$ 4,425
2	Bar Blades	\$ 4,06	2	\$ 8,117
3	Bar Mounts	\$ 24,44	2	\$ 48,888
Sub Total				\$ 61,429

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
													\$ -
Sub Total												\$ -	

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total
								\$ -
Sub Total								0

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total
									\$ -
Sub Total									\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FractionIncluded	Sub Total
								\$ -
Sub Total								\$ -

University University of Seville
System Suspension
Assembly Rear Anti-Roll Bar Asmb.
Part ANTI-ROLL BAR
P/N Base 75001
Suffix AA
Details

Car # 1

Part Cost \$ 4,42
Qty 1
Extended Cost \$ 4,42

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
	Steel, Alloy		\$ 2,25	0,328	kg								\$ 0,74
												Sub Total	\$ 0,738

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
1	Tube end preparation for tubing		\$ 0,75	end	2			\$ 1,50	
2	Weld - Round Tubing		\$ 0,38	cm	4			\$ 1,52	
								Sub Total	\$ 3,02

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
									\$ -	
									Sub Total	\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
	Welding Fixture		\$ 500,00	point	4	3000	1	\$ 0,67	
								Sub Total	\$ 0,67

University University of Seville
System Suspension
Assembly Rear Anti-Roll Bar Asmb.
Part BAR BLADES
P/N Base 75002
Suffix AA
Details

Car # 1

Part Cost \$ 4,06
Qty 2
Extended Cost \$ 8,12

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
	Steel, Alloy		\$ 2,25	0,98	kg								\$ 2,21
												Sub Total	\$ 2,205

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
	Machining Setup, Install and remove		\$ 1,30	unit	1			\$ 1,30	
	Machining		\$ 0,04	cm3	10,833			\$ 0,43	
	Assemble, 1 kg, Loose	mount on frame	\$ 0,06	unit	2			\$ 0,12	
								Sub Total	\$ 1,85

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
									\$ -	
									Sub Total	\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
								Sub Total	0

University University of Seville
System Suspension
Assembly Rear Anti-Roll Bar Asmb.
Part BAR MOUNTS
P/N Base 75003
Suffix AA
Details

Car # 1

Part Cost \$ 24,44
Qty 2
Extended Cost \$ 48,89

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
1	Plastic, POM	Delrin stock	\$ 3,30	0,003	kg								\$ 0,01
2	Bearing, Spherical		\$ 9,98	12,88	mm							2	\$ 19,96
												Sub Total	\$ 19,970

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
1	Machining Setup, Install and remove		\$ 1,30	unit	1			\$ 1,30	
2	Machining		\$ 0,04	cm3	3,85			\$ 0,15	
3	Drilled holes < 25.4 mm dia.		\$ 0,35	hole	2			\$ 0,70	
4	Ratchet <= 25.4 mm		\$ 0,75	unit	2			\$ 1,50	
5	Assemble, 1 kg, Loose	mount on frame	\$ 0,06	unit	4			\$ 0,24	
								Sub Total	\$ 3,89

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
1	Bolt, Grade AN		0,11	4,826	mm	12,7	mm	2	\$ 0,22	
2	Nut, Grade AN		0,16	4,826	mm			2	\$ 0,32	
3	Washer, Grade AN		0,01	4,826	mm			4	\$ 0,04	
									Sub Total	\$ 0,58

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
								Sub Total	0

University University of Seville
System Wheels & Tires
Assembly FRONT WHEEL ASMB.
P/N Base A8100
Suffix AA
Details

Car # 1

Asm Cost \$ 235,69

Qty 2

Extended Cost \$ 471,38

ItemOrder	Part	Part Cost	Quantity	Sub Total
1	Hub	\$ 32,37	1	\$ 32,369
2	Wheel	\$ 96,50	1	\$ 96,500
3	Tire	\$ 100,00	1	\$ 100,000
4	Valve Stem	\$ 1,00	1	\$ 1,000
5	Wheel Bearing	\$ 26,84	1	\$ 26,835
Sub Total				\$ 229,869

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
													\$ -
Sub Total												\$ -	

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total
1	Assemble, 5 kg, Loose	place wheel on hub	\$ 0,31	unit	2			\$ 0,62
2	Power Tool <= 25.4 mm	tighten nuts	\$ 0,25	unit	8			\$ 2,00
Sub Total								\$ 2,62

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total
	Nut, Lug		\$ 0,40					8	\$ 3,20
Sub Total									\$ 3,20

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	Fract Incl	Sub Total
								\$ -
Sub Total								\$ -

University University of Seville
System Wheels & Tires
Assembly Front Wheel Asmb.
Part HUB
P/N Base 81001
Suffix AA
Details

Car # 1

Part Cost \$ 32,37
Qty 1
Extended Cost \$ 32,37

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
	Aluminium, Premium		\$ 4,20	140	mm			circle	1,54E-02	115,00	2.768,30	1	\$ 20,58
												Sub Total	\$ 20,583

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
1	Machining setup, install and remove	machine & drill	\$ 1,30	unit	2			\$ 2,60	
2	Machining	shape	\$ 0,04	cm3	123,9			\$ 4,96	
3	Drill holes < 25,4 mm dia.	holes for studs	\$ 0,35	hole	4			\$ 1,40	
4	Assemble, 1 kg, Interference	press studs	\$ 0,19		4			\$ 0,75	
								Sub Total	\$ 9,71

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
	Stud, Grade 10.9 (SAE 8)	fasten wheel & hub	\$ 0,52	12,1	mm	38,1	mm	4	\$ 2,08	
									Sub Total	\$ 2,08

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracInclId	Sub Total	
								Sub Total	0

University University of Seville
System Wheels & Tires
Assembly Front Wheel Asmb.
Part WHEEL
P/N Base 81002
Suffix AA
Details

Car # 1

Part Cost \$ 96,50
Qty 1
Extended Cost \$ 96,50

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
	Wheel, 13", 2 Piece, Braid, Formrace, Aluminum, Model 16, 6" Wide		\$ 96,50									1	\$ 96,50
												Sub Total	\$ 96,500

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
								\$ -	
								Sub Total	\$ -

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
									\$ -	
									Sub Total	\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
								Sub Total	0

University University of Seville
System Wheels & Tires
Assembly Front Wheel Asmb.
Part TIRE
P/N Base 81003
Suffix AA
Details

Car # 1

Part Cost \$ 100,00
Qty 1
Extended Cost \$ 100,00

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
	Tire, Avon, A45, 13"-20.0 x 7.2		\$ 100,00									1	\$ 100,00
												Sub Total	\$ 100,000

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total
								\$ -
							Sub Total	\$ -

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total
									\$ -
								Sub Total	\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total
							Sub Total	0

University University of Seville
System Wheels & Tires
Assembly Front Wheel Asmb.
Part VALVE STEM
P/N Base 81004
Suffix AA
Details

Car # 1

Part Cost \$ 1,00
Qty 1
Extended Cost \$ 1,00

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
	Valve Stem (and Tire Inflation)		\$ 1,00									1	\$ 1,00
												Sub Total	\$ 1,000

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
								\$ -	
								Sub Total	\$ -

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
									\$ -	
									Sub Total	\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
								Sub Total	0

University University of Seville
System Wheels & Tires
Assembly Front Wheel Asmb.
Part HUB
P/N Base 81001
Suffix AA
Details

Car # 1

Part Cost \$ 26,84
Qty 1
Extended Cost \$ 26,84

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
	Wheel Bearing, Tapered Roller		\$ 26,71	50,8	mm	12,7	mm					1	\$ 26,71
												Sub Total	\$ 26,710

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
4	Assemble, 1 kg, Line-on-Line	insert in upright	\$ 0,13		1			\$ 0,13	
								Sub Total	\$ 0,13

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
									\$ -	
									Sub Total	\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
								Sub Total	0

University University of Seville
System Wheels & Tires
Assembly REAR WHEEL ASMB.
P/N Base A8200
Suffix AA
Details

Car # 1

Asm Cost \$ 262,52

Qty 2

Extended Cost \$ 525,05

ItemOrder	Part	Part Cost	Quantity	Sub Total
1	Hub	\$ 32,37	1	\$ 32,369
2	Wheel	\$ 96,50	1	\$ 96,500
3	Tire	\$ 100,00	1	\$ 100,000
4	Valve Stem	\$ 1,00	1	\$ 1,000
5	Wheel Bearing	\$ 26,84	1	\$ 26,835
Sub Total				\$ 256,704

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
													\$ -
Sub Total												\$ -	

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total
1	Assemble, 5 kg, Loose	place wheel on hub	\$ 0,31	unit	2			\$ 0,62
2	Power Tool <= 25.4 mm	tighten nuts	\$ 0,25	unit	8			\$ 2,00
Sub Total								\$ 2,62

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total
	Nut, Lug		\$ 0,40					8	\$ 3,20
Sub Total									\$ 3,20

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	Fract Incl	Sub Total
								\$ -
Sub Total								\$ -

University University of Seville
System Wheels & Tires
Assembly Rear Wheels
Part HUB
P/N Base 82001
Suffix AA
Details

Car # 1

Part Cost \$ 32,37
Qty 1
Extended Cost \$ 32,37

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
	Aluminium, Premium		\$ 4,20	140	mm			circle	1,54E-02	115,00	2.768,30	1,00E+00	\$ 20,58
												Sub Total	\$ 20,583

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
1	Machining setup, install and remove	machine & drill	\$ 1,30	unit	2			\$ 2,60	
2	Machining	shape	\$ 0,04	cm3	123,9			\$ 4,96	
3	Drill holes < 25,4 mm dia.	holes for studs	\$ 0,35	hole	4			\$ 1,40	
4	Assemble, 1 kg, Interference	press studs	\$ 0,19		4			\$ 0,75	
								Sub Total	\$ 9,71

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
	Stud, Grade 10.9 (SAE 8)		\$ 0,52	12,1	mm	38,1	mm	4	\$ 2,08	
									Sub Total	\$ 2,08

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
								Sub Total	0

University University of Seville
System Wheels & Tires
Assembly Rear Wheels
Part WHEEL
P/N Base 82002
Suffix AA
Details

Car # 1

Part Cost \$ 96,50
Qty 1
Extended Cost \$ 96,50

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
	Wheel, 13", 2 Piece, Braid, Formrace, Aluminum, Model 16, 6" Wide		\$ 96,50									1	\$ 96,50
												Sub Total	\$ 96,500

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
								\$ -	
								Sub Total	\$ -

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
									\$ -	
									Sub Total	\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
								Sub Total	0

University University of Seville
System Wheels & Tires
Assembly Rear Wheels
Part TIRE
P/N Base 82003
Suffix AA
Details

Car # 1

Part Cost \$ 100,00
Qty 1
Extended Cost \$ 100,00

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
	Tire, Avon, A45, 13"-20.0 x 7.2		\$ 100,00									1	\$ 100,00
												Sub Total	\$ 100,000

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total
								\$ -
							Sub Total	\$ -

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total
									\$ -
								Sub Total	\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total
							Sub Total	0

University University of Seville
System Wheels & Tires
Assembly Rear Wheels
Part VALVE STEM
P/N Base 82004
Suffix AA
Details

Car # 1

Part Cost \$ 1,00
Qty 1
Extended Cost \$ 1,00

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
	Valve Stem (and Tire Inflation)		\$ 1,00									1,00E+00	\$ 1,00
												Sub Total	\$ 1,000

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
								\$ -	
								Sub Total	\$ -

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
									\$ -	
									Sub Total	\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
								Sub Total	0

University University of Seville
System Wheels & Tires
Assembly Rear Wheel Asmb.
Part WHEEL BEARING
P/N Base 82005
Suffix AA
Details

Car # 1

Part Cost \$ 26,84
Qty 1
Extended Cost \$ 26,84

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
	Wheel Bearing, Tapered Roller		\$ 26,71	50,8	mm	12,7	mm					1	\$ 26,71
												Sub Total	\$ 26,710

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total	
4	Assemble, 1 kg, Line-on-Line	insert in upright	\$ 0,13		1			\$ 0,13	
								Sub Total	\$ 0,13

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total	
									\$ -	
									Sub Total	\$ -

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FracIncl	Sub Total	
								Sub Total	0