

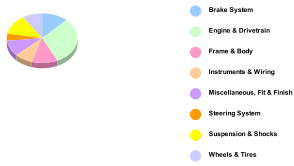
Cost Summary Basic

National Institute of Technology
Team Number - 94



ea Totals	Materials	Processes	Fasteners	Toolin	Total
Brake System	₹ 205.50	₹ 2,880.82	₹ 1,037.00	₹ -	₹ 57,593.36
Engine & Drivetrain	₹ 5,469.34	₹ 17,804.28	₹ 5,842.49	₹ -	₹ 148,113.79
Frame & Body	₹ 7,165.43	₹ 6,768.69	₹ 793.34	₹ -	₹ 56,557.46
Instruments & Wiring	₹ 441.06	₹ 249.60	₹ 48.60	₹ -	₹ 39,426.76
Miscellaneous, Fit & Finish	₹ 1,869.71	₹ 877.50	₹ 195.00	₹ -	₹ 49,404.20
Steering System	₹ 834.65	₹ 769.22	₹ 298.22	₹ -	₹ 21,797.72
Suspension & Shocks	₹ 951.19	₹ 52,236.56	₹ 924.12	₹ -	₹ 62,665.89
Wheels & Tires	₹ 407.05	₹ 4,887.94	₹ 681.20	₹ -	₹ 43,516.19
Total Vehicle	₹ 17,343.93	₹ 86,474.61	₹ 9,819.97	₹ -	₹ 479,075.37

Composition for total vehicle:



Line Num	Area of Commodity	Asm Code	Asm	Rev Lvl.	Part Code	Component	Description	Unit Cost	Quantity	Material Cost	Process Cost	Fastener Cost	Tooling Cost	Total Cost	Details Page Number
	Brake System	A1000	Pedal Assembly	AA		Pedal Assembly		₹ 1,804.05	1	₹ 97.65	₹ 1,437.56	₹ 268.84		₹ 1,804.05	
	Brake System			AA	P1001	Bearing		₹ 378.34	6					₹ 2,270.04	
	Brake System	A1100	Brake Line Assen	AA		Brake Line Assembly		₹ 2,189.61	1	₹ 107.85	₹ 1,427.00	₹ 654.76		₹ 2,189.61	
	Brake System			AA	P1101	Wilwood Master cylinder		₹ 14,000.00	2					₹ 28,000.00	
	Brake System			AA	P1102	Brakeline (3.5ft)		₹ 800.00	2					₹ 1,600.00	
	Brake System			AA	P1103	Brakeline (7.5ft)		₹ 1,400.00	2					₹ 2,800.00	
	Brake System			AA	P1104	Callipers (Vespa)		₹ 3,500.00	4					₹ 14,000.00	
	Brake System			AA	P1105	Fluid Reservoir		₹ 250.00	4					₹ 1,000.00	
	Brake System			AA	P1106	Brake Fluid		₹ 100.00	2					₹ 200.00	
	Brake System			AA	P1107	Hose Pipe		₹ 30.00	4					₹ 120.00	
	Brake System	A1200	Front brake disc	AA		Front brake disc Assembly		₹ 64.83	1		₹ 8.13	₹ 56.70		₹ 64.83	
	Brake System			AA	P1201	Front brake disc		₹ 870.00	2					₹ 1,740.00	
	Brake System	A1300	Rear brake disc	AA		Rear brake disc Assembly		₹ 64.83	1		₹ 8.13	₹ 56.70		₹ 64.83	
	Brake System			AA	P1301	Rear brake disc		₹ 870.00	2					₹ 1,740.00	
	Engine & Drivetrain	A2000	Air Intake Assem	AA		Air Intake Assembly		₹ 9,624.83	1	₹ 205.50	₹ 2,880.82	₹ 1,037.00	₹ -	₹ 57,593.36	
				AA	P2001	Throttle body		₹ 8,000.00	2	₹ 2,525.82	₹ 7,089.56	₹ 9.45		₹ 9,624.83	
				AA	P2002	Accelerator Cable		₹ 160.00	1					₹ 160.00	
				AA	P2003	Air Filter		₹ 450.00	1					₹ 450.00	
	Engine & Drivetrain	A2100	Catch Can	AA		Catch Can		₹ 749.25	1	₹ 187.31	₹ 534.62	₹ 27.32		₹ 749.25	
				AA	P2101	SS Bottle		₹ 160.00	2					₹ 320.00	
	Engine & Drivetrain	A2200	Cooling System	AA		Cooling System		₹ 7,649.28	1	₹ 1,068.60	₹ 1,675.59	₹ 4,905.09		₹ 7,649.28	
				AA	P2201	Radiator		₹ 1,600.00	1					₹ 1,600.00	
				AA	P2202	Fans		₹ 1,300.00	2					₹ 2,600.00	
				AA	P2203	Battery Water		₹ 15.00	1					₹ 15.00	
	Engine & Drivetrain	A2300	DriveTrain	AA		Drive Train		₹ 1,257.89	1	₹ 167.10	₹ 811.29	₹ 279.50		₹ 1,257.89	
				AA	P2301	Rzeppa(5Balls)		₹ 1,200.00	2					₹ 2,400.00	
				AA	P2302	KTM 390 stock Chain		₹ 1,500.00	1					₹ 1,500.00	
				AA	P2303	KTM 390 stock Sproket(15.45)		₹ 400.00	1					₹ 400.00	
				AA	P2304	Open Diffrential and Bearing		₹ 12,000.00	1					₹ 12,000.00	
				AA	P2304	Bearing		₹ 420.00	2					₹ 840.00	
	Engine & Drivetrain	A2400	Engine Assembly	AA		Engine Assembly		₹ 5,143.44	1	₹ 684.00	₹ 4,042.20	₹ 417.24	₹ -	₹ 5,143.44	
	Engine & Drivetrain			AA	P2401	Engine 390 cc		₹ 70,000.00	1					₹ 70,000.00	
	Engine & Drivetrain	A2500	Exhaust Assembl	AA		Exhaust Assembly		₹ 1,642.55	1	₹ 467.00	₹ 1,107.44	₹ 68.11	₹ -	₹ 1,642.55	
	Engine & Drivetrain			AA	P2501	KTM muffler OEM		₹ 4,000.00	1					₹ 4,000.00	
	Engine & Drivetrain	A2600	Fuel Assembly	AA		Fuel Assembly		₹ 2,454.33	1	₹ 351.85	₹ 2,046.20	₹ 56.28	₹ -	₹ 2,454.33	
	Engine & Drivetrain			AA	P2601	Drain Valve		₹ 100.00	1					₹ 100.00	
	Engine & Drivetrain			AA	P2602	Fuel Pump		₹ 2,775.00	1					₹ 2,775.00	
	Engine & Drivetrain			AA	P2603	Fuel Line		₹ 200.00	1.5					₹ 300.00	
	Engine & Drivetrain			AA	P2604	Fuel Filter		₹ 520.00	1					₹ 520.00	
	Engine & Drivetrain	A2700	Gear Shifter	AA		Gear Shifter		₹ 594.54	1	₹ 17.66	₹ 497.38	₹ 79.50	₹ -	₹ 594.54	
	Engine & Drivetrain			AA	P2701	Bearing		₹ 378.84	2					₹ 757.68	
	Engine & Drivetrain			AA	P2702	Heim Joint M 10		₹ 160.00	3					₹ 480.00	
				AA	P2703	Actuating Arm		₹ 160.00	1					₹ 160.00	
	Engine & Drivetrain			AA	P2704	ConeSpacer		₹ 80.00	4					₹ 320.00	
				AA	P2705	Shift Lever, Bicycle OEM		₹ 1,300.00	1					₹ 1,300.00	
	Engine & Drivetrain									₹ 5,469.34	₹ 17,804.28	₹ 5,842.49	₹ -	₹ 148,113.79	
	Frame & Body	A3000	Roll Cage	AA		Roll Cage		₹ 7,922.00	1	₹ 4,446.00	₹ 3,476.00	₹ -	₹ -	₹ 7,922.00	
	Frame & Body	A3100	Seat	AA		Seat		₹ 1,685.09	1	₹ 979.71	₹ 495.63	₹ 209.75	₹ -	₹ 1,685.09	
				AA	P3101	Foam		₹ 450.00	1					₹ 450.00	
				AA	P3102	Seat Cover		₹ 150.00	1					₹ 150.00	
	Frame & Body	A3200	Body Works	AA		Body Works		₹ 2,589.59	1	₹ 1,130.47	₹ 1,081.04	₹ 378.08	₹ -	₹ 2,589.59	
				AA	P3201	ACP Sheet		₹ 1,470.00	1					₹ 1,470.00	
	Frame & Body	A3300	Firewall	AA		Firewall		₹ 855.17	1	₹ 75.00	₹ 754.82	₹ 25.35	₹ -	₹ 855.17	
				AA	P3301	Glass Wool		₹ 50.00	1					₹ 50.00	
				AA	P3302	Aluminium		₹ 50.00	1					₹ 50.00	
				AA	P3303	Araldite		₹ 20.00	1					₹ 20.00	
	Frame & Body	A3400	Safety Harness	AA		Safety Harness		₹ 1,181.39	1	₹ 505.00	₹ 547.63	₹ 128.76	₹ -	₹ 1,181.39	
				AA	P3401	Six point Harness		₹ 14,820.00	1					₹ 14,820.00	
	Frame & Body	A3500	Impact Attenuator	AA		Impact Attenuator		₹ 494.22	1	₹ 29.25	₹ 413.57	₹ 51.40	₹ -	₹ 494.22	
				AA	P3501	Impact Attenuator		₹ 24,800.00	1					₹ 24,800.00	
				AA	P3502	Araldite		₹ 20.00	1					₹ 20.00	
	Frame & Body									₹ 7,165.43	₹ 6,768.69	₹ 793.34	₹ -	₹ 56,557.46	
	Electrical	A4000	Electrical Compon	AA		Electrical Components		₹ 739.26	1	₹ 441.06	₹ 249.60	₹ 48.60	₹ -	₹ 739.26	
	Electrical			AA	P4001	Battery		₹ 1,650.00	1					₹ 1,650.00	
	Electrical			AA	P4002	Brake Light		₹ 520.00	1					₹ 520.00	
	Electrical			AA	P4003	Kill Switch		₹ 100.00	2					₹ 200.00	
	Electrical			AA	P4004	Engine Wiring		₹ 1,000.00	1					₹ 1,000.00	
	Electrical			AA	P4005	Wiring Box		₹ 200.00	1					₹ 200.00	
	Electrical			AA	P4006	Brake Over Travel Switch		₹ 50.00	1					₹ 50.00	
	Electrical			AA	P4007	ECU, OEM Spark & Fuel		₹ 32,500.00	1					₹ 32,500.00	
	Electrical			AA	P4008	Fuses		₹ 32.50	12					₹ 390.00	
				AA	P4009	Bullet Connector		₹ 20.00	4					₹ 80.00	
	Electrical			AA	P4010	Relay		₹ 130.00	12					₹ 1,560.00	
	Electrical			AA	P4011	solenoid		₹ 487.50	1					₹ 487.50	
				AA	P4012	Electrical Tape		₹ 10.00	5					₹ 50.00	
	Instruments & Wiring									₹ 441.06	₹ 249.60	₹ 48.60	₹ -	₹ 39,426.76	
	Miscellaneous, Fit	A5000	Jack and Jacking	AA		Jack and Jacking point		₹ 823.75	1	₹ 450.00	₹ 373.75	₹ -	₹ -	₹ 823.75	
				AA	P5001	Bearing		₹ 250.00	2					₹ 500.00	
	Miscellaneous, Fit	A5100	Tapes and Paints	AA		Tapes,Paints and safety equipr		₹ 1,326.00	1	₹ 1,131.00	₹ -	₹ 195.00	₹ -	₹ 1,326.00	
					P5101	Duct Tape		₹ 350.00	2					₹ 700.00	
					P5102	Aluminium Tape		₹ 200.00	2					₹ 400.00	
					P5103	Tie Wrap		₹ 2.60	50					₹ 130.00	
					P5104	Holdite		₹ 150.00	2					₹ 300.00	
					P5105	Araldite		₹ 20.00	4					₹ 80.00	
					P5106	Arm Restraint SFI 3.3		₹ 2,906.06	1					₹ 2,906.06	
					P5107	Balaclava/ Head Socks SFI Ra		₹ 1,895.71	1					₹ 1,895.71	
					P5108	Driving Gloves SFI 3.3/5		₹ 3,567.48	1					₹ 3,567.48	
					P5109	Driving Shoes 3.3/5		₹ 6,167.39	1					₹ 6,167.39	
					P5110	Nomex Socks SFI Rated		₹ 1,729.06	1					₹ 1,729.06	
					P5111	High Performance Helmet		₹ 9,000.00	1					₹ 9,000.00	
					P5112	Double Layer Driving Suit SFI 3		₹ 18,936.29	1					₹ 18,936.29	
	Miscellaneous, Fit	A5200	Head Restraint	AA		Head Restraint		₹ 792.46	1	₹ 288.71	₹ 503.75	₹ -	₹ -	₹ 792.46	
					P5201	Foam		₹ 100.00	1					₹ 100.00	
					P5202	Leather Cover		₹ 50.00	1					₹ 50.00	
	Miscellaneous, Fit & Finish									₹ 1,869.71	₹ 877.50	₹ 195.00	₹ -	₹ 49,404.20	
	Steering System	A6000	Steering Wheel A	AA		Steering Wheel Assembly		₹ 1,902.09	1	₹ 834.65	₹ 769.22	₹ 298.22	₹ -	₹ 1,902.09	
				AA	P6001	Rack And Pinion		₹ 13,730.00	1					₹ 13,730.00	
				AA	P6002	Bearing		₹ 365.63	1					₹ 365.63	
				AA	P6003	Steering Shaft		₹ 1,200.00	1					₹ 1,200.00	
				AA	P6004	Steering Wheel		₹ 2,000.00	1					₹ 2,000.00	
				AA	P6005	UV Joint		₹ 1,300.00	2					₹ 2,600.00	
	Steering System									₹ 834.65	₹ 769.22	₹ 298.22	₹ -	₹ 21,797.72	
	Suspension	A7000	Front A-Arm Uppe	AA		Front A-Arm Upper Assembly		₹ 716.60	1	₹ 245.70	₹ 398.26	₹ 72.64	₹ -	₹ 716.60	
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Line Number	Area of Commodity	Asm Code	Asm	Rev - Lvl.	Part Code	Component	Description	Unit Cost	Quantity	Material Cost	Process Cost	Fastener Cost	Tooling Cost	Total Cost	Details Page Number
					P7601	Front Shock Up		₹ 1,150.00	2					₹ 2,300.00	
					P7602	Rear Shock Up		₹ 2,487.01	2					₹ 4,974.02	
	Suspension & Shocks														
	Wheels & Tires	A8000	Front Hub Assem	AA	P8001	Front Hub Assembly		₹ 1,304.47	1	₹ 240.71	₹ 1,063.76	₹ -	₹ -	₹ 1,304.47	
				AA		Bearing		₹ 1,270.00	2					₹ 2,540.00	
	Wheels & Tires	A8100	Rear Hub Assem	AA	P8101	Rear Hub Assembly		₹ 3,573.80	1	₹ 166.34	₹ 3,326.26	₹ 81.20	₹ -	₹ 3,573.80	
				AA		Car Hub Bearing		₹ 2,500.00	2					₹ 5,000.00	
	Wheels & Tires	A8200	Wheel Assembly	AA	P8201	Wheel Assembly		₹ 1,097.92	1	₹ -	₹ 497.92	₹ 600.00	₹ -	₹ 1,097.92	
	Wheels & Tires			AA	P8201	Tyre, Maxxis		₹ 3,500.00	4					₹ 14,000.00	
				AA	P8202	Wheel ,13", 1 Piece OEM, Alum		₹ 4,000.00	4					₹ 16,000.00	
	Wheels & Tires									₹ 407.05	₹ 4,887.94	₹ 681.20	₹ -	₹ 43,516.19	
	Vehicle Total										₹ 17,343.93	₹ 86,474.61	₹ 9,819.97	₹ -	₹ 479,075.37

Car #	94	Asm Cost	₹	4,074.09
		Qty		1
FileLink1				
FileLink2		Extended Cost	₹	4,074.09
FileLink3				

University	National Institute Of Technology Raipur	Team Name	Team United Racing	Car #	94	Asm Cost	₹ 49,909.74
System	Brake					Qty	1
Assembly	Brake Line Assembly			FileLink1			
P/N Base	A1100			FileLink2			
Suffix	AA			FileLink3		Extended Cost	₹ 49,909.74
Details	Hydraulic Circuit						

ItemOrder	Part	Part Cost	Quantity	Sub Total
				₹ -
10	Wilwood Master cylinder	₹ 14,000.00	2.00E+00	₹ 28,000.00
20	Brakeline (3.5ft)	₹ 800.00	2.00E+00	₹ 1,600.00
30	Brakeline (7.5ft)	₹ 1,400.00	2.00E+00	₹ 2,800.00
40	Callipers (Vespa)	₹ 3,500.00	4.00E+00	₹ 14,000.00
50	Fluid Reservoir	₹ 250.00	4.00E+00	₹ 1,000.00
60	Brake Fluid	₹ 100.00	2	₹ 200.00
70	Hose pipe	₹ 30.00	4	₹ 120.00
			Sub Total	₹ 47,720.00

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Na	Area	Length	Den	Quantity	Sub Total
10	GI Wire	Lock by wire	₹ 2.00									1.00E+00	₹ 2.00
20	Metallic Plate AISI 4130	Reservoir mounting, Master cylin	₹ 146.25		1000 gm		40 gm					0.04	₹ 5.85
30	GI Sheet	Reservoir Covering	₹ 50.00		1000 gm		3000 gm					2.00	₹ 100.00
													₹ -
													₹ -
													₹ -
													₹ -
													₹ -
			Sub Total										₹ 107.85

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multipli	Mult. Val	Sub Total
10	Assemble, 1 kg. Line-on-	Joining and arranging all the part	₹ 8.13		1	1	1	₹ 8.13
30	Brake Bleed - Per	To gain pressure and make a goo	₹ 162.50		4	1	1	₹ 650.0
40	Lock by wire	For Locking bolts into position	₹ 2.00		1	1	1	₹ 2.00
50	Welding	In mountings and joining clamps	₹ 9.75	cm	4	1	1	₹ 39.00
60	Drilling(M6)	Mounting reservoirs	₹ 22.75	per drill	4	1	1	₹ 91.00
70	Drilling(M8)	Mounting Master Cylinders	₹ 22.75	per drill	8	1	1	₹ 182.0
80	Drilling(M4)	Reservoir Covering	₹ 22.75	per drill	12	1	1	₹ 273.0
90	Drilling(M3)	Lock By wire	₹ 22.75	per drill	8	1	1	₹ 182.0
			Sub Total					₹ 1,427.0

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total
10	Bolt Grade 8.8	Fixing master cylinder pedal asse	₹ 23.55		8 mm		76.2 mm	4	₹ 94.2
20	Nut Grade 8.8	Fixing master cylinder pedal asse	₹ 2.90		8 mm			4	₹ 11.6
30	Bolt Grade 8.8	Fixing Reservoir	₹ 3.60		6 mm		25.4 mm	4	₹ 14.4
40	Nut Grade 8.8	Fixing Reservoir	₹ 1.94		6 mm			4	₹ 7.76
50	Banjo Bolt	Fixing brake lines with master cy	₹ 110.50		10 mm		25.4 mm	4	₹ 442.0
60	Washer	For banjo bolt	₹ 0.65		10 mm			8	₹ 5.20
70	Bolt Grade 8.8	Fixing callipers with knukle	₹ 9.95		8 mm		38.1 mm	8	₹ 79.6
									₹ -
			Sub Total						₹ 654.0

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	Fraction	Sub Total
						3000		₹ -
						120		₹ -
			Sub Total					₹ -

Extended Cost	₹ 1,804.83
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FileLink3

Sub Total	₹ 16,610.00
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Sub Total	₹ 2,525.82
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Sub Total	₹ 7,089.56
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Sub Total	₹	9.45
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Sub Total	₹ -
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FileLink3[illegible]

FileLink1
FileLink2
FileLink3

Sub Total	₹ 17,140.00
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Sub Total	₹ 167.10
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Sub Total	₹ 811.29
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Sub Total	₹ 279.50
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Sub Total	₹ -
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FileLink1
FileLink2
FileLink3

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
10	Bush	Engine Mounting	₹ 90.00									6.00E+00	₹ 540.00
20	Steel Rod AISI 4130	For Mounting	₹ 180.00	1000	mm	800	mm					8.00E-01	₹ 144.00
													₹ -
													₹ -
													₹ -
													₹ -
													₹ -
													₹ -
													₹ -
												Sub Total	₹ 684.00

[illegible][illegible]

FileLink1
FileLink2
FileLink3

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
10	SS Pipe(OD 39 mm)	Exhaust Manifold	₹ 100.00		1000	mm				820.00		0.82	₹ 82.00
20	Glass Wrap	Insulating medium	₹ 180.00		0.25	kg						2.00	₹ 360.00
30	Grommet	Absorbing Vibration	₹ 3.25									4.00	₹ 13.00
40	Exhaust Pipe, Flexible	Directing Exhaust Gases	₹ 12.00									1.00	₹ 12.00
													₹ -
													₹ -
													₹ -
													₹ -
												Sub Total	₹ 467.00

[illegible]

FileLink1
FileLink2
FileLink3

Details

Fuel Circuit

ItemOrder	Part	Part Cost	Quantity	Sub Total
10	Drain Valve	₹ 100.00	1.00E+00	₹ 100.00
20	Fuel Pump	₹ 2,275.00	1.00E+00	₹ 2,275.00
30	Fuel Line	₹ 200.00	1.50E+00	₹ 300.00
40	Fuel Filter	₹ 520.00	1.00E+00	₹ 520.00
				₹ -
				₹ -
				₹ -
				₹ -
			Sub Total	₹ 3,195.00

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
10	GI steel	Fuel Tank	₹ 800.00	1000	mm	1000	mm	2.32E+03				0.02300	₹ 18.40
20	Hollow cylilndrcal Pipe(52mm OD,2mmthick)		₹ 200.00	1000	mm					326.00		0.33	₹ 65.20
30	Filler Cap	Fuel neck	₹ 195.00									1.00	₹ 195.00
40	Pipe Joint		₹ 20.00	1								2.00	₹ 40.00
50	Tee joint	Supplying Fuel	₹ 30.00									1.00	₹ 30.00
60	O Ring	Seal	₹ 3.25									1.00	₹ 3.25
												Sub Total	₹ 351.85

[illegible]

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total
10	Clamps	Fastening hose pipes	₹ 5.00					8	₹ 40.00
30	Bolts,Grade 8.8	Fuel Tank mounting	₹ 2.13		6 mm	25.4	mm	4	₹ 8.52
40	Nut Grade 8.8	Fuel Tank mounting	₹ 1.94		6 mm			4	₹ 7.76
									₹ -
									₹ -
									₹ -
									₹ -

[illegible]

University	National Institute of Technology, Raipur
System	Engine And Drivetrain
Assembly	Gear Shifter
P/N Base	A2700
Suffix	AA
Details	Gear Shifting Mechanism

Team Name Team United Racing

Car # 94

Asm Cost	₹ 3,612.22
Qty	1

FileLink1

FileLink2

FileLink3

Extended Cost

ItemOrder	Part	Part Cost	Quantity	Sub Total
10	Bearing	₹ 378.84	2.00E+00	₹ 757.68
20	Heim Joint M10	₹ 160.00	3.00E+00	₹ 480.00
30	Conespacer	₹ 80.00	4.00E+00	₹ 320.00
40	Shift Lever, Bicycle	₹ 1,300.00	1.00E+00	₹ 1,300.00
50	Actuating Arm	₹ 160.00	1.00E+00	₹ 160.00
				₹ -
				₹ -
				₹ -
				₹ -
			Sub Total	₹ 3,017.68

[illegible]

Sub Total	₹	17.66
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[illegible]

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total
10	Bolt Grade 8.8	Fastening MS Pipe and other joints	₹ 6.55	8	mm	25.4	mm	2	₹ 13.10
20	Nut Grade 8.8	Fastening MS Pipe and other joints	₹ 2.90	8	mm			2	₹ 5.80
30	Bolt Grade 8.8	Fastening MS Pipe and other joints	₹ 11.07	10	mm	25.4	mm	2	₹ 22.14
40	Nut Grade 8.8	Fastening MS Pipe and other joints	₹ 4.32	10	mm			2	₹ 8.64
50	Bolt Grade 8.8	Fastening MS Pipe and other joints	₹ 5.51	6	mm	38.1	mm	2	₹ 11.02
60	Nut Grade 8.8	Fastening MS Pipe and other joints	₹ 2.90	6	mm			2	₹ 5.80
70	Circlip	Fastening gear shifter	₹ 6.50	22	mm			2	₹ 13.00
									₹ -
									Sub Total ₹ 79.50

[illegible]

Asm Cost	₹	7,922.27
Qty		1
Extended	₹	7,922.27

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
10	Steel Pipes AISI 4	Structure of Roll Cage	₹ 180.00	1000	mm	24700	mm					2.47E+02	₹ 4,446.00
												Sub Total	₹ 4,446.00

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

[illegible]

Extended (₹	2,285.09
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Sub Total	₹ 600.00
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Sub Total	₹	979.71
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Sub Total	₹ 495.63
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Sub Total	₹ 209.75
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Sub Total	₹ -
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Extended	₹	4,059.59
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ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
10	GI Sheet	To provide base for body panel and	₹ 50.00	1000	gm	1500	gm					1.50E+00	₹ 75.00
												Sub Total	₹ 75.00

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total
10	Cutting	For shaping the GI sheets	₹ 13.00	cm	25	1	1	₹ 325.00
20	Assemble, 3 kg	Assembling all the parts together	₹ 24.38		1	1	1.5	₹ 36.57
30	Drilling	Making holes in sheets and mounting	₹ 22.75		13	1	1	₹ 295.75
40	Welding	To Join Mountings to the Frame	₹ 9.75		10	1	1	₹ 97.50
Sub Total								₹ 754.82

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total
10	Rivet	Used to join GI sheets and the mou	₹ 1.95					13	₹ 25.35
									₹ -
Sub Total									₹ 25.35

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FractionIn	Sub Total
Sub Total								₹ -

University National Institute of Technology Raipur
System Frame
Assembly Safety Harness
P/N Base A3400
Suffix AA

Team Name Team United Racing

Car # 11

FileLink1
FileLink2
FileLink3

Asm Cost ₹ 16,001.39
Qty 1
Extended ₹ 16,001.39

Details

[illegible]

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
10	Metallic Plate Al	Anti Intrusion Plate	₹ 146.25	1000	gm	200	gm					0.20	₹ 29.25
												Sub Total	₹ 29.25

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total
10	Assemble, 3 kg.	Assembling all the parts together	₹ 24.38		1	1	1.5 ₹	36.57
20	Drilling(M4)	Making holes in sheets ad mountin	₹ 22.75		4	1	1 ₹	91.00
30	Cutting	For Mountings	₹ 13.00	cm	16	1	1 ₹	208.00
30	Welding	To Join Mountings to the Frame	₹ 9.75	cm	8	1	1 ₹	78.00
							Sub Total	₹ 413.57

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total
10	Bolt Grade 8.8	Used to join GI sheets and the mou	₹ 9.95	8	mm	38.1	mm	4	₹ 39.80
20	Nut Grade 8.8.	Used to join GI sheets and the mou	₹ 2.90	8	mm			4	₹ 11.60
								Sub Total	₹ 51.40

[illegible]

University	National Institute of Tecchnology, Raipur
System	Electical System
Assembly	E.C.S
P/N Base	A4000
Suffix	AA
Details	Electrical Components

Team Name Team United Racing

Car # 94

Asm Cost ₹ 39,631.76
Qty 1

FileLink1
FileLink2
FileLink3

Extended Cost ₹ 39,631.76

ItemOrder	Part	Part Cost	Quantity	Sub Total
10	Battery	₹ 1,650.00	1.00E+00	₹ 1,650.00
20	Brake Light	₹ 520.00	1.00E+00	₹ 520.00
30	Kill Switch	₹ 195.00	2.00E+00	₹ 390.00
40	Engine Wiring	₹ 1,000.00	1.00E+00	₹ 1,000.00
50	Wiring Box	₹ 200.00	1.00E+00	₹ 200.00
60	Starter Switch	₹ 65.00	1.00E+00	₹ 65.00
70	ECU, OEM Spark & Fuel	₹ 32,500.00	1.00E+00	₹ 32,500.00
80	Bullet Conector	₹ 20.00	4.00E+00	₹ 80.00
90	Electrical Tape	₹ 10.00	5.00E+00	₹ 50.00
100	Fuses	₹ 32.50	12	₹ 390.00
110	Relay	₹ 130.00	12	₹ 1,560.00
120	solenoid	₹ 487.50	1	₹ 487.50
Sub Total				₹ 38,892.50

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Nam	Area	Length	Density	Quantity	Sub Total
10	Loose Wires	Earthing	₹ 80.00	1000	mm					1,000.00		1.00	₹ 80.00
20	Glass Fibre	Wire box	₹ 180.00	1	kg						2.55g/(cm)^3	0.37	₹ 66.06
30	Header Wrap	Covering Wires	₹ 1,950.00	1	m^2							0.10	₹ 195.00
40	Plastic Pipes	Covering Wires	₹ 50.00									1.00	₹ 50.00
50	GI Sheet	Wiring Mountir	₹ 50.00	1000	gm	3000	gm					1.00	₹ 50.00
													₹ -
													₹ -
Sub Total													₹ 441.06

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total
1	Connector Assembly, Solder	Soldering wires	₹ 15.60	Contacts	16	1	1	₹ 249.60
								₹ -
								₹ -
								₹ -
Sub Total								₹ 249.60

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total
10	Bolt(M 6)	Earthing of Wir	₹ 5.51	38.1	mm			6	₹ 33.06
20	Nylon lock nut	Earthing of Wir	₹ 1.94					6	₹ 11.64
30	Washer(M 6)	Earthing of Wir	₹ 0.65					6	₹ 3.90
									₹ -
									₹ -
									₹ -
									₹ -
Sub Total									₹ 48.60

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FractionIn	Sub Total
Sub Total								₹ -

Asm Cost	₹ 47,137.9
Qty	1
Extended C	₹ 47,137.9

[illegible]

Car #	94	Asm Cost	₹ 942.46
FileLink1		Qty	1
FileLink2		Extended C	₹ 942.46
FileLink3			

[illegible][illegible][illegible]

FileLink1
FileLink2
FileLink3

Sub Total	₹ 19,895.63
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Sub Total	₹	834.65
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Sub Total	₹	769.22
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Sub Total	₹	298.22
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Sub Total	₹ -
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Extended Cost ₹ 1,036.60

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FractionIn	Sub Total
						3000		₹ -
						120		₹ -
							Sub Total	₹ -

FileLink1
FileLink2
FileLink3

Sub Total	₹ 320.00
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Sub Total	₹	45.33
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Sub Total	₹ 398.26
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Sub Total	₹ 72.64
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Sub Total	₹ -
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Extended Cost	₹ 405.66
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[illegible]

				₹ -
				₹ -
				₹ -
				₹ -
				₹ -
Sub Total				₹ -

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
10	Retaining Ring,		₹ 61.50		72 mm							2.00E+00	₹ 123.00
													₹ -
													₹ -
													₹ -
													₹ -
													₹ -
													₹ -
Sub Total													₹ 123.00

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total
10	Assemble, 3 kg. Line-	Knuckle Assembly	₹ 24.38		2	1	1	₹ 48.76
20	CNC	Manufacturing Knuckle	₹ 10,000.00		2	1	1	₹ 20,000.00
40	Cutting	Cutting material	₹ 13.00	cm	5	1	1	₹ 65.00
50	Grinding	Grinding material	₹ 9.75	cm^2	2	1	1	₹ 19.50
								₹ -
								₹ -
Sub Total								₹ 20,133.26

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total
10	Bolt, Grade 8.8	Fastening A-Arms to Knuckle	₹ 34.91	8 mm	8	101.6 mm		4	₹ 139.64
20	Nut, Grade 8.8 (SAE		₹ 2.90	8 mm	8			4	₹ 11.60
									₹ -
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									₹ -
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ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FractionIn	Sub Total
Sub Total								₹ -

University	National Institute of Technology, Raipur	Team Name	Team United Racing	Car #	94	Asm Cost	₹ 7,838.60
System	Suspension					Qty	1
Assembly	Shock Up Assembly			FileLink1			
P/N Base	A7600			FileLink2		Extended Cost	₹ 7,838.60
Suffix	AA			FileLink3			
Details	Damper Assembly						

ItemOrder	Part	Part Cost	Quantity	Sub Total
10	Front Shock Up	1150	2.00E+00	₹ 2,300.00
20	Rear Shock Ups	2487.01	2	₹ 4,974.02
				₹ -
				₹ -
				₹ -
				₹ -
				₹ -
				₹ -
				₹ -
Sub Total				₹ 7,274.02

Extended ₹ 3,844.47

[illegible]

FileLink1
FileLink2
FileLink3

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
10	Metallic Plate (6 mm thick)	Rear Hub Flange Material	₹ 146.25		1 kg						7.70	0.55700	₹ 80.43
20	Metallic Plate (4 mm thick)	Rear Hub Flange Material	₹ 146.25		1 kg						7.70	0.40	₹ 58.06
30	Cylindrical Hollow Pipe (48 mm) EN-19	Rear Hub Material	₹ 70.00		1 kg						7.85E+00	0.26	₹ 17.85
40	Sleeve	Proper fixture in place	₹ 5.00		1 unit							2.00	₹ 10.00
													₹ -
													₹ -
													₹ -
												Sub Total	₹ 166.34

Item	Order	Process	Use	Unit	Cost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total
10		Assemble, 1 kg, Line-on-Line		₹	8.13		2		1 ₹	16.26
20		Weld	Welding Flange and sleeve to	₹	9.75	cm	10			₹ 195.00
30		Machining	Material Removal from outer	₹	2.60	cm^3		3	25 ₹	65.00
40		Milling Work	Splines	₹	1,000.00		1	1	3 ₹	3,000.00
50		Cutting	Removal of extra material fro	₹	13.00	cm	2	1	1 ₹	50.00
										₹ -
										₹ -
										₹ -
									Sub Total	₹ 3,326.26

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total.
10	Castle nut	Locking Axle	₹ 35.00					2	₹ 70.00
20	Pin, Cotter, Hairpin	Positive Locking for Rear Hubs	₹ 5.60					2	₹ 11.20
									₹ -
									₹ -
									₹ -
									₹ -
									Sub Total ₹ 81.20

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FractionIn	Sub Total
						3000		₹ -
						120		₹ -
							Sub Total	₹ -

FileLink3[illegible]

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