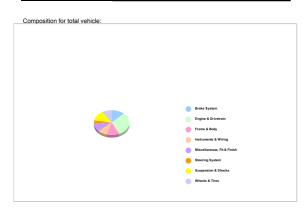
Cost Summary Basic

National Institute of Technlogy Team Number - 94



ea 1	otals		Materials	-	Processes	F	asteners	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



ine Nun		Asm Code	Asm	Rev Lvl.	Part Code	Component	Desc riptio n	Unit Cost	Quantity	Material Cost		Fastener Cost	Too ling Cos t	Total Cost	Details Page Number
	Brake System Brake System	A1000	Pedal Assembly	AA	P1001	Pedal Assembly Bearing		₹ 1,804.05 ₹ 378.34	6	₹ 97.65				₹ 1,804.05 ₹ 2,270.04	
	Brake System Brake System	A1100	Brake Line Asser	AA AA	P1101	Brake Line Assembly Wilwood Master cylinde	r	₹ 2,189.61 ₹ 14,000.00	1 2	₹ 107.85	₹ 1,427.00	₹ 654.76		₹ 2,189.61 ₹ 28,000.00	
	Brake System			AA	P1102	Brakeline (3.5ft)		₹ 800.00	2					₹ 1,600.00	
	Brake System Brake System			AA	P1104	Brakeline (7.5ft) Callipers (Vespa)		₹ 1,400.00 ₹ 3,500.00	4					₹ 2,800.00 ₹ 14,000.00	
	Brake System Brake System			AA	P1105	Fluid Reservoir Brake Fluid		₹ 250.00 ₹ 100.00	4 2					₹ 1,000.00 ₹ 200.00	
	Brake System	44000	Facet backs all a	AA	P1107	Hose Pipe		₹ 30.00	4		T 0.40	* F0.70		₹ 120.00	
	Brake System Brake System	A1200	Front brake disc	AA	P1201	Front brake disc Assemi		₹ 64.83 ₹ 870.00	1 2		₹ 8.13			₹ 64.83 ₹ 1,740.00	
	Brake System Brake System	A1300	Rear brake disc A	AA	P1301	Rear brake disc Assemb Rear brake disc	oly	₹ 64.83 ₹ 870.00	2		₹ 8.13	₹ 56.70		₹ 64.83 ₹ 1,740.00	
	Brake System				1 1001					₹ 205.50			₹ -	₹ 57.593.36	
	Engine & Drivetrai	A2000	Air Intake Assem	AA	P2001	Air Intake Assembly Throttle body		₹ 9,624.83 ₹ 8,000.00	1 2	₹ 2,525.82	₹ 7,089.56	₹ 9.45		₹ 9,624.83 ₹ 16,000.00	
				AA AA	P2002 P2003	Accelarator Cable Air Filter		₹ 160.00 ₹ 450.00	1					₹ 160.00 ₹ 450.00	
	Engine & Drivetrai	A2100	Catch Can	AA	P2101	Catch Can		₹ 749.25	1	₹ 187.31	₹ 534.62	₹ 27.32		₹ 749.25	
	Engine & Drivetrai	A2200	Cooling System	AA AA		SS Bottle Cooling System		₹ 7,649.28	1	₹ 1,068.60	₹ 1,675.59	₹ 4,905.09		₹ 7,649.28	
				AA AA		Radiator Fans		₹ 1,600.00 ₹ 1,300.00	1 2					₹ 1,600.00 ₹ 2,600.00	
	Casina & Drivatuai	A2200	DeixaTenia	AA	P2203	Battery Water		₹ 15.00	1 1	3 467.40	¥ 011 00	3 070.50		₹ 15.00	
	Engine & Drivetrai	A2300	DriveTrain	AA		DriveTrain Rzeppa(5Balls)		₹ 1,200.00	2	₹ 167.10	₹ 811.29	₹ 279.50		₹ 2,400.00	
				AA		KTM 390 stock Chain KTM 390 stock Sproket	(15:45.0	₹ 1,500.00 ₹ 400.00	1					₹ 1,500.00 ₹ 400.00	
				AA	P2304	Open Diffrential and Bea		₹ 12,000.00	1					₹ 12,000.00	
	Engine & Drivetrai		Engine Assembly			Bearing Engine Assembly		₹ 420.00 ₹ 5,143.44	1	₹ 684.00	₹ 4,042.20	₹ 417.24	₹ -	₹ 840.00 ₹ 5,143.44	
	Engine & Drivetrai Engine & Drivetrai	n	Exhaust Assemb	AA	P2401	Engine 390 cc Exhaust Assembly		₹ 70,000.00 ₹ 1,642.55	1	₹ 467.00				₹ 70,000.00 ₹ 1,642.55	
	Engine & Drivetrai	n		AA	P2501	KTM muffler OEM		₹ 4,000.00	1					₹ 4,000.00	
	Engine & Drivetrai Engine & Drivetrai		Fuel Assembly	AA	P2601	Fuel Assembly Drain Valve		₹ 2,454.33 ₹ 100.00	1	₹ 351.85	₹ 2,046.20	₹ 56.28	₹ -	₹ 2,454.33 ₹ 100.00	
	Engine & Drivetrai Engine & Drivetrai	n		AA AA	P2602	Fuel Pump Fuel Line		₹ 2,775.00 ₹ 200.00	1.5					₹ 2,775.00 ₹ 300.00	
				AA	P2603 P2604	Fuel Filter		₹ 520.00	1					₹ 520.00	
	Engine & Drivetrai Engine & Drivetrai	n	Gear Shifter	AA	P2701	Gear Shifter Bearing		₹ 594.54 ₹ 378.84	1 2	₹ 17.66	₹ 497.38	₹ 79.50	₹ -	₹ 594.54 ₹ 757.68	
	Engine & Drivetrai	n		AA AA	P2702	Heim Joint M 10		₹ 160.00	3					₹ 480.00	
	Engine & Drivetrai	n		AA		Actuating Arm ConeSpacer		₹ 160.00 ₹ 80.00	4					₹ 320.00	
	Engine & Drivetrai	n		AA	P2705	Shift Lever, Bicycle OEN	<u> </u>	₹ 1,300.00	1	₹ 5.460.34	₹ 17.804.28	₹ 5.842.49	3 .	₹ 1,300.00 ₹ 148.113.79	
	Frame & Body	A3000	Roll Cage	AA		Roll Cage		₹ 7,922.00		₹ 4,446.00	₹ 3,476.00	₹ -	₹ -	₹ 7,922.00	
	Frame & Body	A3100	Seat	AA AA	P3101	Seat Foam		₹ 1,685.09 ₹ 450.00	1	₹ 979.71	₹ 495.63	₹ 209.75	₹ -	₹ 1,685.09 ₹ 450.00	
	Frame & Body	A3200	Body Works	AA	P3102	Seat Cover Body Works		₹ 150.00 ₹ 2,589.59	1	₹ 1,130.47	₹ 1,081.04	₹ 378.08	¥ _	₹ 150.00 ₹ 2,589.59	
				AA	P3201	ACP Sheet		₹ 1,470.00	1					₹ 1,470.00	
	Frame & Body	A3300	Firewall	AA AA	P3301	Firewall Glass Wool		₹ 855.17 ₹ 50.00	1	₹ 75.00	₹ 754.82	₹ 25.35	₹ -	₹ 855.17 ₹ 50.00	
				AA AA	P3302 P3303	Aluminium Araldite		₹ 50.00 ₹ 20.00	1					₹ 50.00 ₹ 20.00	
	Frame & Body	A3400	Safety Harness	AA		Safety Harness		₹ 1,181.39	1	₹ 505.00	₹ 547.63	₹ 128.76	₹ -	₹ 1,181.39	
	Frame & Body	A3500	Impact Attenuato	AA r AA	P3401	Six point Harness Impact Attenuator		₹ 14,820.00 ₹ 494.22	1	₹ 29.25	₹ 413.57	₹ 51.40	₹ -	₹ 14,820.00 ₹ 494.22	
				AA	P3501 P3502	Impact Attenuator Araldite		₹ 24,800.00 ₹ 20.00	1					₹ 24,800.00 ₹ 20.00	
	Frame & Body				1 3302			20.00		₹ 7.165.43				₹ 56.557.46	
	Electrical Electrical	A4000	Electrical Compo	AA AA	P4001	Electrical Components Battery		₹ 739.26 ₹ 1,650.00	1	₹ 441.06	₹ 249.60	₹ 48.60	₹ -	₹ 739.26 ₹ 1,650.00	
	Electrical Electrical			AA	P4002 P4003	Brake Light Kill Switch		₹ 520.00 ₹ 100.00	1 2					₹ 520.00 ₹ 200.00	
	Electrical			AA	P4004	Engine Wiring		₹ 1,000.00	1					₹ 1,000.00	
	Electrical Electrical					Wiring Box Brake Over Travel Switch	 ch	₹ 200.00 ₹ 50.00	1					₹ 200.00 ₹ 50.00	
	Electrical			AA		ECU, OEM Spark & Fue		₹ 32,500.00	1 12					₹ 32,500.00 ₹ 390.00	
	Electrical			AA	P4009	Bullet Connector		₹ 20.00	4					₹ 80.00	
	Electrical Electrical			AA	P4010 P4011	Relay solenoid		₹ 130.00 ₹ 487.50	12					₹ 1,560.00 ₹ 487.50	
		ina				Electrical Tape		₹ 10.00		¥ 444.00	# 040.00	¥ 40.00	3	₹ 50.00	
	Instruments & Wir Miscellaneous, Fit	A5000	Jack and Jacking			Jack and Jacking point		₹ 823.75		₹ 441.06 ₹ 450.00			₹ -		
	Miscellaneous, Fit	A5100	Tapes and Paints	AA	P5001	Bearing Tapes,Paints and safety	equipr	₹ 250.00 ₹ 1,326.00	1	₹ 1,131.00	₹ -	₹ 195.00	₹ -	₹ 500.00 ₹ 1,326.00	
						Duct Tape	1	₹ 350.00	2					₹ 700.00	
					P5103	Aluminium Tape Tie Wrap		₹ 200.00 ₹ 2.60	50					₹ 400.00 ₹ 130.00	
						Holdite Araldite		₹ 150.00 ₹ 20.00						₹ 300.00 ₹ 80.00	
					P5106	Arm Restraint SFI 3.3	CELE	₹ 2,906.06	1					₹ 2,906.06	
					P5108	Balaclava/ Head Socks Driving Gloves SFI 3.3/5		₹ 3,567.48	1					₹ 1,895.71 ₹ 3,567.48	
					P5109	Driving Shoes 3.3/5 Nomex Socks SFI Rated		₹ 6,167.39 ₹ 1,729.06	1					₹ 6,167.39 ₹ 1,729.06	
					P5111	High Performance Helm	et	₹ 9,000.00	1					₹ 9,000.00	
		A5200	Head Restraint	AA	P5112	Double Layer Driving St Head Restraint	uit SFI 3	₹ 18,936.29 ₹ 792.46	1	₹ 288.71	₹ 503.75	₹ -	₹ -	₹ 18,936.29 ₹ 792.46	
	Miscellaneous, Fit			_	P5201	Foam		₹ 100.00 ₹ 50.00	1					₹ 100.00 ₹ 50.00	
	Miscellaneous, Fit			\vdash				30.00		₹ 1.869.71	₹ 877.50	₹ 195.00	₹ -	₹ 49.404.20	
	Miscellaneous, Fit		l Our and the second		P5202			×		E 00.				W	
			Steering Wheel A	AA		Steering Wheel Assembly Rack And Pinion	У	₹ 1,902.09 ₹ 13,730.00	1	₹ 834.65	₹ 769.22	₹ 298.22	₹ -	₹ 1,902.09 ₹ 13,730.00	
	Miscellaneous, Fit		Steering Wheel A	AA	P5202 P6001 P6002	Steering Wheel Assemb Rack And Pinion Bearing	y	₹ 13,730.00 ₹ 365.63	1 1 1	₹ 834.65	₹ 769.22	₹ 298.22	₹ -	₹ 1,902.09 ₹ 13,730.00 ₹ 365.63	
	Miscellaneous, Fit		Steering Wheel A	AA AA AA	P5202 P6001 P6002 P6003 P6004	Steering Wheel Assemb Rack And Pinion Bearing Steering Shaft Steering Wheel	y	₹ 13,730.00 ₹ 365.63 ₹ 1,200.00 ₹ 2,000.00	1 1 1 1 1	₹ 834.65	₹ 769.22	₹ 298.22	₹ -	₹ 1,902.09 ₹ 13,730.00 ₹ 365.63 ₹ 1,200.00 ₹ 2,000.00	
	Miscellaneous, Fit Steering System		Steering Wheel A	AA AA	P5202 P6001 P6002 P6003	Steering Wheel Assemb Rack And Pinion Bearing Steering Shaft	y	₹ 13,730.00 ₹ 365.63 ₹ 1,200.00	1 1 1 1 1 2	₹ 834.65		₹ 298.22	₹ -	₹ 1,902.09 ₹ 13,730.00 ₹ 365.63 ₹ 1,200.00 ₹ 2,000.00 ₹ 2,600.00	
	Miscellaneous, Fit		Steering Wheel A	AA AA AA AA	P5202 P6001 P6002 P6003 P6004 P6005	Steering Wheel Assemb Rack And Pinion Bearing Steering Shaft Steering Wheel UV Joint		₹ 13,730.00 ₹ 365.63 ₹ 1,200.00 ₹ 2,000.00 ₹ 1,300.00	1 1 1 1 2	₹ 834.65 ₹ 834.65 ₹ 245.70		₹ 298.22 ₹ 298.22 ₹ 72.64		₹ 1,902.09 ₹ 13,730.00 ₹ 365.63 ₹ 1,200.00 ₹ 2,000.00 ₹ 2,600.00 ₹ 21,797.72 ₹ 716.60	
	Miscellaneous, Fit Steering System	& Finish A6000		AA AA AA AA	P5202 P6001 P6002 P6003 P6004	Steering Wheel Assemble Rack And Pinion Bearing Steering Shaft Steering Wheel UV Joint Front A-Arm Upper Assemble IV Joint M 10		₹ 13,730.00 ₹ 365.63 ₹ 1,200.00 ₹ 2,000.00 ₹ 1,300.00 ₹ 716.60 ₹ 160.00 ₹ 516.23	1 1 1 1 1 2	₹ 834.65	₹ 769.22		₹ -	₹ 1,902.09 ₹ 13,730.00 ₹ 365.63 ₹ 1,200.00 ₹ 2,000.00 ₹ 2,600.00 ₹ 21,797.72 ₹ 716.60 ₹ 320.00 ₹ 516.23	
	Miscellaneous, Fit Steering System Steering System Steering System Suspension Suspension	& Finish A6000 A7000 A7100	Front A-Arm Upp	AA AA AA AA AA	P5202 P6001 P6002 P6003 P6004 P6005	Steering Wheel Assemb Rack And Pinion Bearing Steering Shaft Steering Wheel UV Joint Front A-Arm Upper Asse Heim Joint M 10	embly	₹ 13,730.00 ₹ 365.63 ₹ 1,200.00 ₹ 2,000.00 ₹ 1,300.00 ₹ 716.60 ₹ 160.00 ₹ 516.23 ₹ 160.00	1 2 1 2	₹ 834.65 ₹ 834.65 ₹ 245.70 ₹ 45.33	₹ 769.22 ₹ 398.26	₹ 72.64 ₹ 72.64	₹ -	₹ 1,902.09 ₹ 13,730.00 ₹ 365.63 ₹ 1,200.00 ₹ 2,000.00 ₹ 2,600.00 ₹ 21,797.72 ₹ 716.60 ₹ 320.00 ₹ 320.00	
	Miscellaneous, Fit Steering System Steering System Steering System Suspension Suspension Suspension Suspension	& Finish A6000 A7000 A7100 A7200 A7300	Front A-Arm Upp Front A-Arm Low Rear H-Arm Uppn Rear H-Arm Low	AA AA AA AA AA AA AA AA	P6001 P6002 P6003 P6004 P6005	Steering Wheel Assemble Rack And Pinion Bearing Steering Shaft Steering Wheel UV Joint Front A-Arm Upper Assemble IV Joint M 10 Heim Joint M 10 Heim Joint M 10 Rear H-Arm Upper Assemble Rear H-Arm Upper Assemble IV IV IV	embly	₹ 13,730,00 ₹ 365.63 ₹ 1,200,00 ₹ 2,000,00 ₹ 1,300,00 ₹ 160.00 ₹ 160.00 ₹ 160.00 ₹ 405.65 ₹ 740.09	1 2 1 2 1 1	₹ 834.65 ₹ 834.65 ₹ 245.70 ₹ 45.33 ₹ 37.26 ₹ 371.70	₹ 769.22 ₹ 398.26 ₹ 398.26 ₹ 295.75	₹ 72.64 ₹ 72.64 ₹ 72.64 ₹ 72.64	₹ -	₹ 1,902.09 ₹ 13,730.00 ₹ 3,650.30 ₹ 1,200.00 ₹ 2,000.00 ₹ 2,600.00 ₹ 21,797.72 ₹ 716.60 ₹ 320.00 ₹ 516.23 ₹ 320.00 ₹ 4,05.65 ₹ 740.09	
	Miscellaneous, Fit Steering System Steering System Steering System Suspension Suspension Suspension	& Finish A6000 A7000 A7100	Front A-Arm Upp	AA AA AA AA AA AA	P6001 P6002 P6003 P6004 P6005	Steering Wheel Assemb Rack And Pinion Bearing Steering Shaft Steering Wheel UV Joint Front A-Arm Upper Asse Heim Joint M 10 Rear H-Arm Upper Asse	embly	₹ 13,730.00 ₹ 365.63 ₹ 1,200.00 ₹ 2,000.00 ₹ 716.60 ₹ 160.00 ₹ 160.00 ₹ 160.00 ₹ 405.65	1 2 1 2 1	₹ 834.65 ₹ 834.65 ₹ 245.70 ₹ 45.33	₹ 769.22 ₹ 398.26 ₹ 398.26	₹ 72.64 ₹ 72.64 ₹ 72.64 ₹ 72.64 ₹ 136.32	₹ -	₹ 1,902.09 ₹ 13,730.00 ₹ 365.63 ₹ 1,200.00 ₹ 2,000.00 ₹ 2,000.00 ₹ 21,797.72 ₹ 716.60 ₹ 320.00 ₹ 516.23 ₹ 320.00 ₹ 405.65	

University National Institute of Technology Raipur
Compet SUPRA
Year 2020
Car # 94

ine Nun	Area of Commodity	Asm Code	Asm	Rev Lvl.	Part Code	Component	Desc riptio n	U	nit Cost	Quantity	N	laterial Cost	Pr	ocess Cost	Fastene	er Cost	Too ling Cos t	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 & Sho	cks									₹	951.19	₹	52,236,56	₹	924.12	₹ -	₹ 62,665,89	
	Wheels & Tires	A8000	Front Hub Assem	AA		Front Hub Assembly		₹	1,304.47	1	₹	240.71	₹	1,063.76	₹	-	₹ -	₹ 1,304.47	
				AA	P8001	Bearing		₹	1,270.00	2								₹ 2,540.00	
	Wheels & Tires	A8100	Rear Hub Assemb	AA		Rear Hub Assembly		₹	3,573.80	1	₹	166.34	₹	3,326.26	₹	81.20	₹ -	₹ 3,573.80	
				AA	P8101	Car Hub Bearing		₹	2,500.00	2								₹ 5,000.00	
	Wheels & Tires	A8200	Wheel Assembly	AA		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	1, 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	

 University System
 Brakes
 FileLink1

 P/N Base
 AS MOST
 ₹ 4,074.09

 By Rasembly
 FileLink2
 Extended Cost
 ₹ 4,074.09

 P/N Base
 AD
 FileLink2
 Extended Cost
 ₹ 4,074.09

 Suffix
 AA
 FileLink3
 FileLink3
 Extended Cost
 ₹ 4,074.09

 Details
 Adjustable Pedal arrangement

ItemOrder	Part	Part Cost		Quantity	Sub Total	
10	Bearing	₹	378.34	6.00E+00	₹	2,270.04
					₹	-
					₹	-
					₹	-
					₹	-
					₹	-
					₹	-
					₹	-
	•			Sub Total	3	2 270 04

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Na	Area	Lengt	Den	Quantity	Sub 1	otal
10	Steel Rod AISI 4130	Base for Pedal	₹ 180.00	1000	mm	350	mm					3.50E-01	₹	63.00
20	Steel Rod AISI 4130	To reduce Sheer Stress in pedals	₹ 180.00	1000	mm	30	mm					0.03	₹	5.40
30	Metallic Plate AISI 4130	Pedals, Pedal Base, Pedal mounts	₹ 146.25	1000	gm	200	gm					0.20	₹	29.25
													₹	-
													₹	-
													₹	-
													₹	-
													₹	-
	•								•			Sub Total	₹	97.65

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multipli	Mult. Val	Sub 1	otal
10	Cutting	Sheet Metal Saw Cut	₹ 13.00	cm	30	1	1	₹ 39	0.0
20	Grind, Flat	Used for Shaping And profiling	₹ 9.75	cm^2	10	1	1	₹ 97	′.5¢
30	Drilling(M8)	For Pedal mounts	₹ 22.75		6	1	1	₹ 13	6.5
40	Assemble, 3 kg,	Joining and arranging all the part	₹ 36.56		1	1	1	₹ 36	5.5€
50	Lathe	For precision manufacturing	₹ 100.00		4	1	1	₹ 40	0.0
60	Welding		₹ 9.75		20	1	1	₹ 19	5.0
70	Drilling(M10)	For making holes	₹ 22.75		8	1	1	₹ 18	32.0
		-		•			Sub Total	₹ 1,	437

ItemOrder	Fastener	Use	Unit	Cost	Size1	Unit1	Size2	Unit2	Quantit	Sub Tota
										₹ -
10	Bolt Grade 8.8	Fastening Pedals	₹	18.52	8	mm	63.5	mm	3	₹ 55.50
20	Nut Grade 8.8	Fastening Pedals	₹	2.90	8	mm			3	₹ 8.70
30	Bolt Grade 8.8	Fastening Pedals and master cyli	₹	16.37	10	mm	38.1	mm	8	₹ 130.9
40	Nut Grade 8.8	Fastening Pedals and master cyli	₹	4.32	10	mm			8	₹ 34.50
50	Circlip	Keeping pedal bearings intact	₹	6.51					6	₹ 39.0
										₹ -
										₹ -
									ub Total	₹ 268.

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FractionI	Sub Tot
						3000		
						120		
-	•			•			Sub Total	₹ -

University National Institute Of Technology Raipur
System Brake
Assembly Brake Line Assembly
P/N Base A1100
Suffix AA
Details Hydraulic Circuit

Team Name Team United Racing

Car # 94 FileLink1 FileLink2 FileLink3

Asm Cost ₹ 49,909.74 Qty 1 Extended Cost ₹ 49,909.74

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	Lengt	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	Unit	tCost	Unit	Quantity	Multipli	Mult. Val	Sub Tota
10	Assemble, 1 kg, Line-on-	Joining and arranging all the part	₹	8.13	1	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

ItemOrder	Fastener	Use	Unit	Cost	Size1	Unit1	Size2	Unit2	Quantit	Sub Tota
10	Bolt Grade 8.8	Fixing master cylinder pedal asse	₹	23.55	8	mm	76.2	mm	4	₹ 94.20
20	Nut Grade 8.8	Fixing master cylinder pedal asse	₹	2.90	8	mm			4	₹ 11.60
30	Bolt Grade 8.8	Fixing Reservoir	₹	3.60	6	mm	25.4	mm	4	₹ 14.40
40	Nut Grade 8.8	Fixing Reservoir	₹	1.94	6	mm			4	₹ 7.76
50	Banjo Bolt	Fixing brake lines with master cyl	₹ :	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	₹ 79.60
										₹ -
						-		9	ub Total	₹ 654.

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FractionI	Sub Tota
						3000		₹ -
						120		₹ -
							Cult. Tutal	*

University
System
Brake
Assembly
Front brake disc Assembly
P/N Base
A1200
Suffix
AA
Details
Front Braking Arrangement for disc

Team Name Team United Racing

Car # 94
FileLink1
FileLink2
FileLink3

Asm Cost ₹ 1,804.83
Qty 1

Extended Cost ₹ 1,804.83

ItemOrder	Part	Part Cost		Quantity	Sub Total	
10	Front brake disc	₹	870.00	2.00E+00	₹	1,740.00
					₹	-
					₹	-
					₹	-
					₹	-
					₹	-
					₹	-
					₹	-
					₹	-
		•		Sub Total	₹	1,740.00

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Na	Area	Lengti	Den	Quantity	Sub To	tal
												Sub Total	₹	-

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multipli	Mult. Val	Sub Tota
10	Assemble, 1 kg, Line-on-	Arranging and joining wheel asse	₹ 8.13		1	1	1	₹ 8.13
								₹ -
•	•	•					Sub Total	₹ 8 13

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantit	Sub Total
10	Bolt Grade 8.8	Fixing hub with disc	₹ 6.55	8	mm	25.4	mm	6	₹ 39.30
20	Metal Lock Nut	Fixing hub with disc	₹ 2.90	8	mm			6	₹ 17.40
									₹ -
							S	ub Total	₹ 56.7

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FractionI	Sub Tot	a
						3000		₹ -	1
						120		₹ -]
							Sub Total	3 .	1

System Brake
Assembly Rear Brake Disc Assembly
P/N Base A1300
Suffix AA
Details Rear Braking Arrangement for disc

	Asm Cost	₹	1,804.8
FileLink1	Qty		1
FileLink2			
FileLink3	Extended Cost	₹	1,804.8

ItemOrder	Part	Part Cost		Quantity	Sub Total	
10	Rear brake disc	₹	870.00	2.00E+00	₹	1,740.00
					₹	-
					₹	-
					₹	-
					₹	-
					₹	-
					₹	-
					₹	-
					₹	-
				Sub Total	₹	1.740.00

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Na	Area	Lengtl	Den	Quantity	Sub Total
												Sub Total	₹ -

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multipli	Mult. Val	Sub Tota
10	Assemble, 1 kg, Line-on-	Arranging and joining wheel asse	₹ 8.13		1	1	1	₹ 8.13
								₹ -
	•	•					Sub Total	₹ 8 13

	ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantit	Sub Tota	ıl
	10	Bolt Grade 8.8	Fixing hub with disc	₹ 6.55	8	mm	25.4	mm	6	₹ 39.30	
İ	20	Metal Lock Nut	Fixing hub with disc	₹ 2.90	8	mm			6	₹ 17.40	
										₹ -	
											₹ -

Sub Total ₹ 56.7

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FractionI	Sub	Tota	ı
						3000		₹	-	
						120		₹		
							Sub Total	₹		

450.00

 Quantity
 Sub Total

 8,000.00
 2.00E+00
 ₹ 16,000.00

 160.00
 1.00E+00
 ₹ 160.00

Sub Total ₹ 16,610.00

450.00 1.00E+00 ₹

University National Institute of Technology, Raipur
System Engine And Drivetrain
Assembly Air Intake Assembly
P/N Base A2000
Suffix AA
Details Components for Engine Air Intake

ItemOrder Part 10 Throttle body
20 Accelarator Cable
30 Air Filter

Part Cost

₹

Car #

Asm Cost ₹ 26,234.83 Qty 1

FileLink1 FileLink2 FileLink3

94

Extended ₹ 26,234.83

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub	Total
10	Aluminium block	Restrictor	₹ 273.00	1	kg							2.00000	₹	546.00
20	Aluminium block	Planum	₹ 273.00	1	kg							4.00	₹	1,092.00
30	Aluminium block	Runner	₹ 273.00	1	kg							1.00	₹	273.00
40	Cast iron	Clamps	₹ 1,000.00	1	kg							0.50	₹	500.00
50	Metallic Plate AISI 413	Intake Mounts	₹ 146.25	1000	gm	274	gm					0.27	₹	40.07
60	Spring, Tension (Gene	Actuating Throttle Body	₹ 65.00									1.00	₹	65.00
70	O Ring	Seal	₹ 3.25									3.00	₹	9.75
												Sub Total	₹	2,525.82

ItemOrder	Process	Use	Unit	Cost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total
10	Lathe Work (machinin	Restrictor						3	₹ 1,200.00
20	Lathe Work (machinin	Planum						3	₹ 2,000.00
30	Lathe Work (machinin	Runner						3	₹ 1,000.00
40	Lathe Work (machinin	Clamp						3	₹ 500.00
50	Gas Weld		₹	0.20	per mm	8720		1	₹ 1,820.00
60	Assemble, 3 kg, Interf	Assemble Intake Manifold to Engine	₹	36.56	unit	1	1.5	1	₹ 36.56
70	Sheet Metal Saw Cut	Cutting Mounts	₹	13.00	cm	30	1	1	₹ 390.00
80	Drilling(M6)	Intake Mounts	₹	22.75	per drill	2	1	1	₹ 45.50
80	Grind	Grinfing and shaping mountings	₹	9.75	cm^2	10	1	1	₹ 97.50
								Sub Total	₹ 7,089.56

ItemOrde	Fastener	Use	UnitCo	ost	Size1	Unit1	Size2	Unit2	Quantity		Sub T	otal
10	Bolt (M 6)	Intake mount	₹	6.55						1	₹	6.55
20	Nylon Lock Nut (M 6)	Intake mount	₹	2.90						1	₹	2.90
											₹	-
											₹	-
											₹	-
											₹	-
											₹	-
											₹	-
	•	•							Sub To	tal	₹	9.45

ItemOrde	Tooling	Use	UnitCost	Unit	Quantity	PVF	FractionIn	Sub Total
•						•	Cult Takel	*

University National Institute of Technology, Raipur
System Engine And Drivetrain
Assembly Catch Can
P/N Base A2100
Suffix AA
Details Fixing Catch Cans

Team Name Team United Racing

Car#

Asm Cost ₹ 1,069.25 Qty 1

ItemOrde	Part	Part Cost		Quantity	Sub '	Total
10	SS Bottle	₹	160.00	2.00E+00	₹	320.00
					₹	-
					₹	-
					₹	-
					₹	-
					₹	-
					₹	-
					₹	-
					₹	-
	•	·		Sub Total	₹	320.00

ItemOrde	Material	Use	Unit	tCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub	Total
10	Tee joint (6 mm OD)	For joining pipes to Catch Can	₹	30.00									1.00	₹	30.00
20	Nipple(14 mm OD)		₹	50.00									3.00	₹	150.00
30	Metallic Plate AISI 41	Catch Can Mountings	₹	146.25	1000	gm	50	gm					0.05	₹	7.31
														₹	-
														₹	-
														₹	-
														₹	-
													Sub Total	₹	187.31

ItemOrde	Process	Use	Uni	tCost	Unit	Quantity	Multiplier	Mult. Val.	Sub	Total
10	Drilling	Catch Can Mounting	₹	22.75		6		1	₹	136.50
20	Gas welding		₹	9.75	cm	15	1	1	₹	146.25
30	Assemble, 1 kg,	Assemble Catch Can to Mounting	₹	4.06		2	1		₹	8.12
40	Cutting	For Mountings	₹	13.00	cm	15	1	1	₹	195.00
50	Grind,Flat	For Mountings	₹	9.75	cm^2	5	1	1	₹	48.75
									₹	-
									₹	-
									₹	-
•	•				•	•		Sub Total	₹	534.62

ItemOrde	Fastener	Use	Unit	Cost	Size1	Unit1	Size2	Unit2	Quantity	Sub	Total
10	Bolt Grade 8.8	Fastening Catch Can to Mounting	₹	3.93	8	mm		12.7	4	₹	15.72
20	Nut, Grade 8.8 (SAE	Fastening Catch Can to Mounting	₹	2.90	8				4	₹	11.60
										₹	-
										₹	-
										₹	-
										₹	-
										₹	-
										₹	-
		,							Sub Total	₹	27.32

ItemOrde	Tooling	Use	UnitCost	Unit	Quantity	PVF	FractionIn	Sub Total
				•			Sub Total	₹ -

University National Institute of Technology, Raipur
System Engine And Drivetrain
Assembly Cooling System
P/N Base A2200
Suffix AA
Details Radiator Assembly

Team Name Team United Racing

Car# 12314.92

FileLink1 FileLink2 FileLink3

12314.92

ItemOrder	Part	Part Cost		Quantity	Sub	Total
10	Radiator	₹	1,600.00	1.00E+00	₹	1,600.00
20	Fans	₹	1,300.00	2.00E+00	₹	2,600.00
30	Battery Water	₹	20.00	1.50E+00	₹	30.00
					₹	-
					₹	-
					₹	-
					₹	-
					₹	-
		•		Sub Total	₹	4,230.00

ItemOrder	Material	Use	Un	itCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub	Total
10	Aluminium block	Thermostat	₹	273.00	1	kg							0.25	₹	68.25
20	Metallic Plate AISI 41	Radiator mounts	₹	146.25	1000	gm	200	gm					0.20	₹	29.25
30	Rubber Hose	For Flow of coolent	₹	362.70	1	m	31	mm					2.00	₹	725.40
40	Rubber Hose	For Flow of coolent	₹	245.70	1	m	21	mm					1.00	₹	245.70
	•	•			•			•	•	•	•		Sub Total	₹	1,068.60

ItemOrde	Process	Use	UnitCo	st	Unit	Quantity	Multiplier	Mult. Val.	Sub	Total
10	Lathe work	Thermostat Aluminium Housing							₹ 1	,000.00
20	Assemble, 1 kg,	Assemble Radiator to Mounting	₹ 4	4.06		1	1	1.5	₹	6.09
30	Cutting	For Mountings	₹ 1	3.00	cm	50	1	1	₹	650.00
40	Grind, Flat	For Mountings	₹ 9	9.75	cm^2	2	1	1	₹	19.50
									₹	-
									₹	-
									₹	-
									₹	-
								Sub Total	₹ 1	,675.59

ItemOrde	Fastener	Use	Unit	Cost	Size1	Unit1	Size2	Unit2	Quantity	Sub	Total
10	Hose Clamp,	Proper fixing of Radiator Hose	₹ :	372.07	25.4	mm			7	₹ 2	,604.49
20	Hose Clamp, Constan	t Tension	₹ !	575.15	50.8				4	₹ 2	,300.60
										₹	-
										₹	-
										₹	-
										₹	-
										₹	-
										₹	-
									Sub Total	₹ 4	,905.09

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

Asm Cost ₹ 18,397.89 Qty 1 Car# 94

University National Institute of Technology, Raipur
System Engine And Drivetrain
Assembly DriveTrain
P/N Base A2300
Suffix AA
Details Transmission Assembly

FileLink1 FileLink2 FileLink3

Extended ₹ 18,397.89

ItemOrder	Part	Part Cost		Quantity	Su	b Total
10	Rzeppa(5Balls)	₹	1,200.00	2.00E+00	₹	2,400.00
20	KTM 390 stock Chain	₹	1,500.00	1.00E+00	₹	1,500.00
30	KTM 390 stock Sproke	₹	400.00	1.00E+00	₹	400.00
40	Open Diffrential and E	₹	12,000.00	1.00E+00	₹	12,000.00
50	Bearing	₹	420.00	2.00E+00	₹	840.00
					₹	-
					₹	-
					₹	-
					₹	-
				Sub Total	₹	17,140.00

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub	Total
10	Mild Steel AISI 4130	Diffrential Mount	₹ 146.2	1	kg						7.85	0.69	₹	101.06
20	Mild Steel(3mm)	Chain Guard	₹ 65.00	1	kg						7.85	0.77	₹	49.99
30	Nylon Bush	Chain Tensioner											₹	5.00
40	MildSteel AISI 4130	Chain Tensioner mountings	₹ 146.2	1	kg						7.85	0.08	₹	11.06
				•								Sub Total	₹	167.10

ItemOrder	Process	Use	Unit	Cost	Unit	Quantity	Multiplier	Mult. Val.	Sub	Total
10	Drilling	Differential mounts, Chain tightner	₹	22.75	per drill	15	1	1	₹	341.25
20	Assemble, 3 kg, Interf	Axle Assembly	₹	36.56		1	1	1.5	₹	54.84
30	Assemble, 5 kg Line to	Assembling Differential to Mounting	₹	40.63		1	1	1.5	₹	60.95
40	Cutting	For Mountings	₹	13.00	cm	20	1	1	₹	260.00
50	Grinding	For Mountings	₹	9.75	cm^2	5	1	1	₹	48.75
60	Drilling	Chain Tensioner Mountings	₹	22.75	per drill	2	1	1	₹	45.50
									₹	-
								Sub Total	₹	811.29

ItemOrde	Fastener	Use	Unit	Cost	Size1	Unit1	Size2	Unit2	Quantity	Sub	Total
10	Bolt, Grade 8.8	Fastening Differential to Mounting	₹	22.84	10	mm	50.8	mm	6	₹	137.04
20	Bolt, Grade 8.8	Fastening Chain Guard	₹	3.60	6	mm	25.4	mm	4	₹	14.40
30	Bolt, Grade 8.8	Adjusting Bolt for Diffrential Mounting	₹	25.71	12	mm	38.1	mm	2	₹	51.42
40	bolt, Grade 8.8	Adjusting Bolt for Diffrential Mounting	₹	6.55	8	mm	25.4	mm	4	₹	26.20
50	Nut, Grade 8.8 (SAE	Fastening Differential to Mounting	₹	4.32	10	mm			6	₹	25.92
60	Nut, Grade 8.8 (SAE 5	Fastening Chain Guard	₹	1.44	6	mm			4	₹	5.76
70	Nut, Grade 8.8 (SAE 5	Adjusting Bolt for Diffrential Mounting	₹	6.48	12	mm			2	₹	12.96
80	Nut, Grade 8.8 (SAE 5	Adjusting Bolt for Diffrential Mounting	₹	2.90	8	mm			2	₹	5.80
		•							Sub Total	₹	279 50

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

Car #

94

FileLink1 FileLink2 FileLink3

Extended ₹ 75,143.44

University
System Engine And Drivetrain
Assembly Engine Assembly
P/N Base
Suffix AA
Details Engine

ItemOrde	Part	Part Cost		Quantity	Sul	b Total
10	Engine 390 cc	₹	70,000.00	1.00E+00	₹	70,000.00
					₹	-
					₹	-
					₹	-
					₹	-
					₹	-
					₹	-
					₹	-
					₹	-

Sub Total	3	70.000.00

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub 1	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

ItemOrde	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Total
10	Assemble, >20 kg,	Mount Engine in Tube Frame	₹ 365.63		1	1	1.5	₹ 548.45
20	Engine First start	Starting The engine First time	₹ 3,250.00		1	1	1	₹ 3,250.00
30	Tube cut	Cuts for engine Mounts	₹ 9.75	cm	20	1	1	₹ 195.00
40	Grind, Round	For Mountings	₹ 9.75	cm^2	5	1	1	₹ 48.75
								₹ -
								₹ -
								₹ -
								₹ -
	•						Cub Total	Ŧ 4 042 20

Sub Total ₹ 4,042.20

ItemOrde	Fastener	Use	Uni	tCost	Size1	Unit1	Size2	Unit2	Quantity	Sub	Total
10	Bolt, Grade 8.8 (SAE	Fastening Engine to Frame	₹	134.76	10	mm	190.5	mm	3	₹	404.28
20	Nut grade 8.8	Fastening Engine to Frame	₹	4.32	10	mm			3	₹	12.96
										₹	-
										₹	-
										₹	-
										₹	-
										₹	-
										₹	-
						-			Sub Total	₹	417.24

ItemOrde	Tooling	Use	UnitCost	Unit	Quantity	PVF	FractionIn	Sub T	otal
						3000		₹	-
						120		₹	-
	•						Code Total		

Car # 94

Asm Cost ₹ 5,642.55 Qty 1

University National Institute of Technology, Raipur
System Engine And Drivetrain
Assembly Exhaust Assembly
P/N Base
Suffix AA
Details

FileLink1
FileLink2
FileLink3

Extended ₹ 5,642.55

ItemOrde	Part	Part Cost		Quantity	Sub	Total
10	KTM muffler OEM	₹	4,000.00	1.00E+00	₹	4,000.00
					₹	-
					₹	-
					₹	-
					₹	-
					₹	-
					₹	-
					₹	-
					₹	-
				Sub Total	₹	4,000.00

ItemOrder	Material	Use	Uni	itCost	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

ItemOrde	Process	Use	Unit	tCost	Unit	Quantity	Multiplier	Mult. Val.	Sub	Total
10	Gas Weld		₹	9.75		72	1	1	₹	702.00
20	Drilling	Muffler mounts	₹	22.75		8		1	₹	182.00
30	Assemble, 5 kg, Line-	Assemble Muffler to Mounting	₹	40.63		1	1	1	₹	40.63
40	Assemble, 1 kg, Loose	Assembling Exhaust Head to engine	₹	4.06		1	1	1	₹	4.06
50	Cutting	Various Mountings	₹	13.00	cm	10	1	1	₹	130.00
60	Grinding	Various Mountings	₹	9.75	cm^2	5	1	1	₹	48.75
									₹	-
									₹	-
					•			Sub Total	₹ 1	,107.44

ItemOrde	Fastener	Use	UnitCo	st	Size1	Unit1	Size2	Unit2	Quantity	Sub	Total
10	Clamps	Fixing Muffler	₹ 4:	2.41					1	₹	42.41
20	Bolt,Graded 8.8	Exhaust Mounting	₹ 9	9.95	8	mm	38.1	mm	2	₹	19.90
30	Lock Nut	Exhaust Mounting	₹ :	2.90					2	₹	5.80
										₹	-
										₹	-
										₹	-
										₹	-
										₹	-
	•						•		Sub Total	₹	68.11

ItemOrde	Tooling	Use	UnitCost	Unit	Quantity	PVF	FractionIn	Sub To	otal
						3000		₹	-
						120		₹	-
	•						Sub Total	₹	

Details Fuel Circuit

ItemOrde	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	Uni	tCost	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 cylilndrical Pip	e(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	3	351 85

ItemOrder	Process	Use	Un	itCost	Unit	Quantity	Multiplier	Mult. Val.	Sub	Total
10	Lathe work	Internal external thread making	₹	166.68				3	₹	500.00
20	Welding gas		₹	9.75	cm	24	1	1	₹	234.00
30	Welding gas	Brass welding	₹	9.75	cm	131	1	1	₹ :	1,277.25
40	Drilling	Fuel tank mounts	₹	22.75	per drill			1	₹	22.75
50	Assemble, 1 kg, Line-	Assembling Fuel Tank to frame	₹	8.13		1	1	1.5	₹	12.20
									₹	-
									₹	-
									₹	-
								Sub Total	₹ 2	2,046.20

ItemOrde	Fastener	Use	Unit	ost	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
										₹	-
										₹	-
										₹	-
										₹	-
	•								Sub Total	3	EC 20

ItemOrde	Tooling	Use	UnitCost	Unit	Quantity	PVF	FractionIn	Sub Total
		•		•			Sub Total	₹ -

University
System Engine And Drivetrain
Assembly Gear Shifter
P/N Base
Suffix AA
Details Gear Shifting Mechanism

Team Name Team United Racing

Car #

Asm Cost ₹ 3,612.22 Qty 1

FileLink1 FileLink2 FileLink3

Extended Cost

ItemOrde	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

ItemOrde	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub To	otal
10	Metallic Plate AISI 413	Various Mountings and supports	₹ 146.25	1000	gm	10	gm					0.01000	₹	1.46
20	MS Pipe (od 14 id 9)	Joining various parts	₹ 180.00	1000	mm	90	cm					0.09	₹	16.20
													₹	-
													₹	-
													₹	-
													₹	-
													*	

Sub Total	₹	17.66

ItemOrder	Process	Use	Unit	tCost	Unit	Quantity	Multiplier	Mult. Val.	Sub	Total
10	Drilling(M6)	In mountings	₹	22.75		2	1	1	₹	45.50
20	Assemble, 1 kg, Line-		₹	8.13		1	1	1	₹	8.13
30	Lathe Work	Bearing Housing	₹	100.00		2	1	1	₹	200.00
40	Cutting	Various Mountings	₹	13.00	cm	15	1	1	₹	195.00
50	Grinding	Various Mountings	₹	9.75	cm^2	5	1	1	₹	48.75
								Sub Total	₹	497.38

ItemOrde	Fastener	Use	Unit	Cost	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

ItemOrde	Tooling	Use	UnitCost	Unit	Quantity	PVF	FractionIn	Sub Total
							Cub Total	4

University	National Institute of Technology Raipur	Team Name	Team United Racing	Car#	94		
System	Frame					Asm Cost ₹	7,922.27
Assembly	Roll Cage			FileLink1		Qty	1
P/N Base	A3000			FileLink2			
Suffix	AA			FileLink3		Extended (₹	7,922.27
Details	Structural Frame						

ItemOrder	Part	Part Cost	Quantity	Sub 1	Γotal
				₹	-
				₹	-
				₹	-
				₹	-
				₹	-
				₹	-
				₹	-
				₹	-
				₹	-
			Sub Total	₹	-

ItemOrder	Material	Use	Unit	Cost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Tota	al
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	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub	Total
10	Tube cut	Cutting excess member	₹ 9.75	cm	62.5	1	1	₹	609.38
20	Tube bends	Roll Cage Triangulatin members	₹ 48.75		4	1	1	₹	195.00
30	Tube bends	Main hoop Brace	₹ 48.75		3	1	1	₹	146.25
40	Tube bends	Engine Mounting	₹ 48.75		2	1	1	₹	97.50
50	Welding	To Join Steel Pipes to complete the	₹ 24.70	cm	76.2	1	1	₹	1,882.14
60	Grind, Profile	Profiling For Grinding	₹ 9.75	cm^2	56	1	1	₹	546.00
								₹	-
							Sub Total	₹	3,476.27

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

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FractionIn	Sub Total
							Sub Total	3

University National Institute of Technology Raipur Team Name Team United Racing Car# 94 Asm Cost ₹ 2,285.09
System Frame TileLink1
P/N Base A3100 FileLink2 Extended ₹ 2,285.09
Suffix AA
Details Driver Seat Assembly

ItemOrder	Part	Part Cost		Quantity	Sub	Total
10	Foam	₹	450.00	1.00E+00	₹	450.00
20	Seat cover	₹	150.00	1.00E+00	₹	150.00
					₹	-
					₹	-
					₹	-
					₹	-
					₹	-
					₹	-
					₹	-
				Sub Total	₹	600.00

ItemOrder	Material	Use	Unit	tCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub To	tal
10	GI Sheet	Base For seat	₹	50.00	1000	gm	3330	gm					3.33E+00	₹	166.50
20	Glass Fibre	Reinforcing Plate of steel	₹	200.00	1000										
30	Resin	Base plastic coat	₹	200.00	1	litre							1.00	₹	200.00
40	Catalyst	Accelarating drying speed	₹	300.00	1	litre								₹	300.00
50	Hardner	Providing Hardening	₹	310.00	1	litre								₹	310.00
60	Metallic plate Al	For making mountings	₹	146.25	1000	gm	21.98	gm					0.02	₹	3.21
														₹	-
														₹	-
							•		•	•		•	Sub Total	₹	979.71

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub	Total
10	Drilled holes <	For making holes in seat to mount	₹ 22.75	hole	5	1	1	₹	113.75
20	Assemble, 5 kg,	Joining and arranging all the parts	₹ 40.63		1	1	1	₹	40.63
30	Sheet Metal	Shaping the desired design of the s	₹ 13.00	cm	10	1	1	₹	130.00
40	Resin	Moulding the glass fibre to reinforce	₹ 162.50	m^2	0.4	1	1	₹	65.00
50	Weld	In mountings and metal lock nuts	₹ 9.75	cm	15	1	1	₹	146.25
								₹	-
						-	Sub Total	₹	495.63

ItemOrder	Fastener	Use	Unit	Cost	Size1	Unit1	Size2	Unit2	Quantity	Su	b Total
10	Bolt Grade 8.8	For fixing the seat rigidly	₹	37.63	10	mm	76.2	mm	5	₹	188.15
20	Metallic Lock nut	For fixing the seat rigidly	₹	4.32	10	mm			3	₹	12.96
30	Nut Grade 8.8	For fixing the seat rigidly	₹	4.32	10	mm			2	₹	8.64
										₹	-
										₹	-
										₹	-
										₹	-
										₹	-
									Sub Total	₹	209.75

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

University
System Frame
Assembly
P/N Base
Suffix
AA

Team Name Team United Racing

Car #
FileLink1
FileLink2
FileLink3

 Details Exterior covers

ItemOrder	Part	Part Cost		Quantity	Sul	b Total
10	ACP Sheet	₹	1,470.00	1.00E+00	₹	1,470.00
					₹	-
					₹	-
					₹	-
					₹	-
					₹	-
					₹	-
					₹	-
					₹	-
				Sub Total	₹	1.470.00

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	3000	gm					3.00E+00	₹ 150.00
20	Glass Fibre	Reinforcing Plate of steel	₹ 200.00	1000	gm	1500	gm					1.50	₹ 300.00
30	Resin	Base plastic coat	₹ 200.00	1	litre							1.00	₹ 200.00
40	Catalyst	Accelarating drying speed	₹ 300.00	1	litre							1.00	₹ 300.00
50	Hardner	Providing Hardening	₹ 310.00	1	litre							1.00	₹ 310.00
60	Metallic Plate Al	Mounting	14625	1000	gm	90	gm					0.09	₹ 13.16
70	Metallic Plate Al	Clamping	₹ 146.25	1000	gm	50	gm					0.05	₹ 7.31
													₹ -
				,				•					₹ -
									_	-		Sub Total	₹ 1,130.47

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub	Total
10	Cutting	For shaping the GI sheets	₹ 13.00	cm	13	1	1	₹	169.00
20	Drilling(M4)	Making holes is sheets ad mountin	₹ 22.75		35	1	1	₹	796.25
30	Resin	For making moulds for foot rest an	₹ 162.50	m^2	0.6	1	1	₹	97.50
40	Assemble, 1 kg,	Assembling all the parts together	₹ 12.19		1	1	1.5	₹	18.29
50	Welding	To Join Mountings to the Frame						₹	-
								₹	-
								₹	-
								₹	-
					-		Cub Total		1 001 04

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total
10	Rivet	Used to join GI sheets and the mou	₹ 1.95	4	mm			100	₹ 195.00
20	Bolt Grade 8.8	For fixing the Foot rest Rigidly	₹ 6.55	8	mm	25.4	mm	16	₹ 104.80
30	Metallic Nut Gra	For fixing the Foot rest Rigidly	₹ 2.90	8	mm			16	₹ 46.40
40	Bolt Grade 8.8	For fixing Nose rigidly	₹ 3.60	6	mm	25.4	mm	4	₹ 14.40
50	Nut Grade 8.8	For fixing Nose rigidly	₹ 1.94	6	mm			4	₹ 7.76
60	Bolt Grade 8.8	For fixing Nose rigidly	₹ 3.56	4	mm	38.1	mm	2	₹ 7.12
70	Nut Grade 8.8	For fixing Nose rigidly	₹ 1.30	4	mm			2	₹ 2.60
								Sub Total	₹ 378.08

Team Name Team United Racing

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

University	National Institute of Technology Raipur
System	Frame
Assembly	Firewall
P/N Base	A3300
Suffix	AA
Details	Firewall assembly

ItemOrder	Part	Part Cost		Quantity	Sub	Total
					₹	-
10	Glass Wool	₹	50.00	1.00E+00	₹	50.00
20	Aluminium Tape	₹	50.00	1.00E+00	₹	50.00
30	Araldite	₹	20.00	1.00E+00	₹	20.00
					₹	-
					₹	-
					₹	-
					₹	-
					₹	-
				Sub Total	₹	120.00

Car#				
	11	Asm Cost	₹	975.17
FileLink1		Qty		1
FileLink2				
E11-11-1-0		Francisco de al-		075.45

 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 of the provide

ItemOrder	Process	Use	UnitC	ost	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 is sheets ad mountin	₹	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	7 .

University
System Frame
Assembly
P/N Base A3400
Suffix AA

Team Name Team United Racing

FileLink1 FileLink2 FileLink3

Car # 11

Asm Cost ₹ 16,001.39 Qty 1

Details Safety arrangement for driver

ItemOrder	Part	Part Cost		Quantity	Sub T	otal
10	Six point Harnes	₹	14,820.00	1.00E+00	₹ 14,	820.00
					₹	-
					₹	-
					₹	-
					₹	-
					₹	-
					₹	-
					₹	-
					₹	-
				Sub Total	₹14	820 OO

ItemOrder	Material	Use	Unit	tCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub To	tal
10	Metallic Plate Al	Used for making Mountings	₹	146.25	1000	gm						7.25		₹	500.00
20	Rod	For restrainig harness from sidewa	₹	0.50	10	mm								₹	5.00
														₹	-
											Sub Total	₹	505.00		

ItemOrder	Process	Use	UnitCost		Unit	Quantity	Multiplier	Mult. Val.	Sub	Total
10	Cutting	For shaping the Mountings	₹	13.00	cm	20	1	1	₹	260.00
20	Drilling	Making Holes in Mountings	₹	22.75		8	1	1	₹	182.00
30	Assemble, 1 kg,	Assemblig the harness	₹	8.13		1	1	1	₹	8.13
40	Welding	To Join Mountings to the Frame	₹	9.75	cm	10	1	1	₹	97.50
			•					Sub Total	3	EA7 62

ItemOrder	Fastener	Use	Unit	Cost	Size1	Unit1	Size2	Unit2	Quantity	Sub	Total
10	Bolt Grade 8.8	Fixing Harness Rigidly	₹	25.71	12	mm	38.1	mm	4	₹	102.84
20	Nut Grade 8.8	Fixing Harness Rigidly	₹	6.48	12	mm			4	₹	25.92
										₹	-
									Sub Total	₹ :	128.76

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FractionIn	Sub Total
							Sub Total	3

University
System Frame
Assembly Impact Attenuator
P/N Base A3500
Suffix AA

Team Name Team United Racing

Car #
FileLink1
FileLink2
FileLink3

11 Asm Cost ₹ 25,314.22 Qty 1

Extended ₹ 25,314.22

Details

ItemOrder	Part	Part Cost		Quantity	Sub	Total
					₹	-
10	Impact Attenuat	₹	24,800.00	1.00E+00	₹ 2	4,800.00
20	Araldite	₹	20.00	1.00E+00	₹	20.00
					₹	-
					₹	-
					₹	-
					₹	-
					₹	-
	•			Sub Total	₹ 2	4,820.00

ItemOrder	Material	Use	Unit	Cost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Tot	al
10	Metallic Plate Al	Anti Intrusion Plate	₹	146.25	100	gm	200	gm					0.20	₹	29.25
													Sub Total	₹	29.25

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub Te	otal
10	Assemble, 3 kg,	Assembling all the parts together	₹ 24.38		1	1	1.5	₹	36.57
20	Drilling(M4)	Making holes is 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

	ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FractionIn	Sub Total
ı									
							•	Cub Total	=

University National Institute of Tecchnology, Raipur Team Name Team United Racing Car # 94 Asm Cost ₹ 39,631.76

Qty 1

Assembly E.C.S

P/N Base A4000 FileLink1

Suffix AA

Details Electrical Components

₹	1,650.00 520.00 195.00	1.00E+00 1.00E+00	₹	1,650.00
₹		1.00E+00	-	
	105.00		<	520.00
	195.00	2.00E+00	₹	390.00
₹	1,000.00	1.00E+00	₹	1,000.00
₹	200.00	1.00E+00	₹	200.00
₹	65.00	1.00E+00	₹	65.00
uel ₹	32,500.00	1.00E+00	₹	32,500.00
₹	20.00	4.00E+00	₹	80.00
₹	10.00	5.00E+00	₹	50.00
₹	32.50	12	₹	390.00
₹	130.00	12	₹	1,560.00
₹	487.50	1	₹	487.50
	uel ₹ ₹ ₹ ₹	uel ₹ 32,500.00 ₹ 20.00 ₹ 10.00 ₹ 32.50 ₹ 130.00	uel ₹ 32,500.00 1.00E+00 ₹ 20.00 4.00E+00 ₹ 10.00 5.00E+00 ₹ 32.50 12 ₹ 130.00 12	uel ₹ 32,500.00 1.00E+00 ₹ ₹ 20.00 4.00E+00 ₹ ₹ 10.00 5.00E+00 ₹ ₹ 32,50 12 ₹ 130.00 12 ₹

Sub Total ₹ 38,892.50

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Nam	Area	Length	Density	Quantity	Sub Tota	al
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)	0.37	₹	66.06
30	Header Wrap	Covering Wires	₹ 1,950.00	1	m^2							0.10	₹ 1	195.00
40	Plastic Pipes	Covering Wires	₹ 50.00									1.00	₹	50.00
50	GI Sheet	Wiring Mountin	₹ 50.00	1000	gm	3000	gm					1.00	₹	50.00
													₹	-
													₹	-
	•	•		•		•				•		Sub Total	₹ 4	141.06

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

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
	1					1	Sub Total	₹ -

Team Name Team United Racing

Car#

FileLink1 FileLink2 FileLink3

Asm Cost ₹ 1,323.75 Qty 1

Extended (₹ 1,323.75

94

ItemOrder	Part	Part Cost		Quantity	Sul	Total
1	Bearing	₹	250.00	2.00E+00	₹	500.00
					₹	-
					₹	-
					₹	-
					₹	-
					₹	-
					₹	-
					₹	-
					₹	-
				Sub Total	₹	500.00

ItemOrder	Material	Use	Unit	Cost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
10	Steel Rod AISI 4130	For Jack Lever	₹	180.00	1000	mm	2500	mm						₹ 450.00
20	Metallic Plate AISI 4130	Supporting jack			2	mm								
30	Metallic Plate AISI 4130	Mounting			4	mm								
													Sub Total	₹ 450.00

ItemOrder	Process	Use	Unit	Cost	Unit	Quantity	Multiplier	Mult. Val.	Sub	Total
10	Cutting	Cutting excess member	₹	13.00	cm	25	1	1	₹	325.00
20	Grinding	Used for Shaping And profiling	₹	9.75	cm^2	5	1	1	₹	48.75
30	Drilling	Making holes is sheets ad mountings							₹	-
40	Welding	To Join Steel Pipes to complete the Roll Ca	ge						₹	-
									₹	-
									₹	-
									₹	-
									₹	-
•								Cub Total	-	272.75

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub To	tal
10	Nut Grade 8.8	Fastening and tighting	1.94	6	mm					
20	Bolt Grade 8.8	Fastening and tighting	₹ 5.51	6	mm	38.1	mm		₹	-
									₹	-
								Sub Total		

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

University
System
Miscellaneous
Assembly
7/N Base
A5100
Suffix
Details

Team Name Team United Racing

Car # 94

FileLink1 FileLink2 FileLink3

Asm Cost ₹ 47,137.9 Qty 1

Extended (₹ 47,137.9

ItemOrder	Part	Part Cost		Quantity	Sub	Total
10	Duct Tape	₹	350.00	2.00E+00	₹	700.00
20	Aluminium Tape	₹	200.00	2.00E+00	₹ .	400.00
30	Tie Wrap	₹	2.60	5.00E+01	₹	130.00
40	Araldite	₹	20.00	4.00E+00	₹	80.00
50	Holdite	₹	150.00	2.00E+00	₹	300.00
60	Arm Restraint SFI 3.3	₹	2,906.06	1	₹ 2	,906.06
70	Balaclava/ Head Socks SFI	₹	1,895.71	1	₹ 1	,895.71
80	Driving Gloves SFI 3.3/5	₹	3,567.48	1	₹ 3	,567.48
90	Driving Shoes 3.3/5	₹	6,167.39	1	₹ 6	,167.39
100	Nomex Socks SFI Rated	₹	1,729.06	1	₹ 1	,729.06
110	High Performance Helmet	₹	9,000.00	1	₹ 9	,000.00
111	Double Layer Driving Suit 5	₹	18,936.29	1	₹ 1	8,936.2

Sub Total ₹ 45,811.9

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub Total
10	Paint	To cover Bodyworks and frame from exter	₹ 650.00	1	m^2	1.5	m^2						₹ 975.00
20	Leather	For Covering Wirebox	₹ 6,500.00	1	m^2				0			0.02	₹ 156.00

Sub Total ₹ 1,131.00

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub 1	Fotal
								₹	-
								₹	-
								₹	-
								₹	-
								₹	-
								₹	-
								₹	-
								₹	-
	•	•	•	•			Sub Total	₹	

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub	Total
10	Rivet, Pop	Riveting in Various places	1.95					100		195
									₹	-
									₹	-
								Sub Total	₹ 1	195.00

ItemOrder Tooling

University National Institute of Technology Raipur
System Miscellaneous
Assembly Head Restraint
P/N Base A5200
Suffix AA
Details

Team Name Team United Racing

Car#

Asm Cost ₹ 942.46 Qty 1

FileLink1 FileLink2 FileLink3

Extended (₹ 942.46

ItemOrder	Part	Part Cost	Quantity	Sul	Total
10	Foam	₹ 100.00	1.00E+00	₹	100.00
20	Leather Cover	₹ 50.00	1.00E+00	₹	50.00
				₹	-
				₹	-
				₹	-
				₹	-
				₹	-
				₹	-
				₹	-
-			Sub Total	₹	150.00

ItemOrder	Material	Use	Unit	Cost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sul	b Total
10	GI Sheet	Base For seat	₹	50.00	1000	gm	200	gm					2.00E-01	₹	29.25
20	Glass Fibre	Reinforcing Plate of steel	₹	200.00	1000								0.00	₹	15.00
30	Resin	Base plastic coat	₹	200.00	1	litre								₹	60.00
40	Catalyst	Accelarating drying speed	₹	300.00	1	litre								₹	90.00
50	Hardner	Providing Hardening	₹	310.00	1	litre	0.3	litre					0.30	₹	93.00
60	Metallic plate AISI 4130	For making mountings	₹	146.25	1000	gm	10	gm					0.01	₹	1.46
													Sub Total	₹	288.71

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub	Total
								₹	-
10	Cutting	For Mountings and other plates	₹ 13.00	cm	35	1	1	₹	455.00
20	Grinding	For Mountings and other plates	₹ 9.75	cm^2	5	1	1	₹	48.75
								₹	-
								₹	-
								₹	-
								₹	-
								₹	-
							Sub Total	₹	503.75

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

							1	Jub Fotos
ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FractionIn	Sub Total
							Cub Total	3

University Steering System Steering System Steering System Assembly P/N Base A6000 Suffix AA
Details Steering Mechanism

Team Name Team United Racing

FileLink1 FileLink2 FileLink3

Car#

94

Asm Cost ₹ 21,797.71 Qty 1

Extended Cc ₹ 21,797.71

ItemOrder	Part	Part Cost		Quantity	Su	b Total
10	Rack And Pinion	₹	13,730.00	1.00E+00	₹	13,730.00
20	Steering Shaft	₹	1,200.00	1.00E+00	₹	1,200.00
30	Steering Wheel	₹	2,000.00	1.00E+00	₹	2,000.00
40	UV Joint	₹	1,300.00	2.00E+00	₹	2,600.00
50	Bearing	₹	365.63	1.00E+00	₹	365.63
					₹	-
					₹	-
					₹	-
					₹	-
					₹	-
				Sub Total	₹	19,895.63

ItemOrder	Material	Use	UnitC	ost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub 1	íotal
10	Circular Hollow Pipe (14mm OD,9 mm ID	For Tie Rod	₹	100.00	1000	mm					540.00		5.40E-01	₹	54.00
20	Heim Joint	Tie Rod, Rack	₹	160.00									4.00	₹	640.00
30	Circular solid Pipe	Steering Column	₹	200.00	1000	mm					180.00		0.18	₹	36.00
40	Circular Hollow Pipe	Rack Extension	₹	100.00	1000	mm					160.00		0.16	₹	16.00
50	Square Tube (3mm thick)	Mounting	₹	200.00	1000	mm					180.00		0.18	₹	36.00
60	Clevis	Tie Rod	₹	6.50									2.00	₹	13.00
70	Metallic Plate AISI 4130	Mounting for Rack and Pi	₹	146.25	1000	gm	228	gm					0.23	₹	33.35
80	Hollow Circular Pipe	Bearing housing	₹	180.00							35.00		0.12	₹	6.30
													Sub Total	=	924 65

ItemOrder	Process	Use	Unit	Cost	Unit	Quantity	Multiplier	Mult. Val.	Sub	Total
10	Weld		₹	9.75	cm	10		1	₹	97.50
20	Drilling (M10)`	Fastening Rod End Joints	₹	22.75	per drill	4		1	₹	91.00
30	Tapping (M10)	Fastening Rod End Joints	₹	22.75	per hole	4		1	₹	91.00
40	Lathe Work	Conespacers	₹	100.00			Machining	3	₹	300.00
50	Grinding	For mountings	₹	9.75	cm^2	0.5		1	₹	4.88
60	Cutting	Getting required lengths	₹	13.00	cm	10	1	1	₹	130.00
70	Assemble, 3 kg, Interference	Steering Assembly	₹	36.56		1	1	1.5	₹	54.84
									₹	-
								Sub Total	₹	769.22

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total
10	Bolt (M10)	Tie rod	₹ 16.37	10	mm			6	₹ 98.22
20	Nylon Lock Nut (M10)	Tie Rod	₹ 20.00	10	mm			4	₹ 80.00
30	Bolt (M8)	Fixing Rack with Mountin	₹ 10.00					4	₹ 40.00
40	Nylon Lock Nut (M8)	UV Joint and Rack	₹ 15.00					4	₹ 60.00
50	Washer (M 10)	At each M 10 Nut Bolt	₹ 2.50					8	₹ 20.00
									₹ -
								Sub Total	₹ 298.22

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 Qty
 1,036.60 Qty

 System
 Suspension
 FileLink1
 Front A-Arm Upper Assembly
 FileLink2
 Extended C
 ₹ 1,036.60 FileLink2

 P/N Base
 AA
 FileLink2
 FileLink3
 FileLink3

ItemOrder	Part	Part Cost		Quantity	Sub Total
10	Heim joint (M10)	₹	160.00	2.00E+00	₹ 320.00
					₹ -
					₹ -
					₹ -
					₹ -
					₹ -
					₹ -
					₹ -
					₹ -
		•		Sub Total	₹ 320.00

ItemOrder	Material	Use	Unit	Cost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub	Total
10	MS pipe(OD 14mm ID !	A arm Material	₹	180.00	1000	mm							1.30E+03	₹	234.00
20	MS plate	Gusseting	₹	146.25	1000	gm							80.00	₹	11.70
														₹	-
														₹	-
														₹	-
														₹	-
														₹	-
													Sub Total	₹	245.70

ItemOrder	Process	Use	Un	itCost	Unit	Quantity	Multiplier	Mult. Val.	Su	Total
10	Lathe Work	making housing for heam	₹	100.00		2	1	1	₹	200.00
20	Welding	Joining Housing to Arms &	₹	9.75	cm	10		1	₹	97.50
30	Assemble, 1 kg, Line-	Assembling arms to Mount	₹	8.13		2	1	1	₹	16.26
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	₹	398.26

ItemOrder	Fastener	Use	Uni	tCost	Size1	Unit1	Size2	Unit2	Quantity	Su	b Total
10	Bolt, Grade 8.8	Attach A-Arms to Frame	₹	13.96	8	mm	50.8	mm	4	₹	55.84
20	Nut, Grade 8.8 (SAE	Attach A-Arms to Frame	₹	2.90	8	mm			4	₹	11.60
30	Washer, Grade 8.8	Attach A-Arms to Frame	₹	0.65	8	mm			8	₹	5.20
										₹	-
										₹	-
										₹	-
										₹	-
										₹	-
							_	•	Sub Total	₹	72.64

ItemOrder	Tooling	Use	UnitCost	Unit	Quantity	PVF	FractionIn	Sub T	otal
						3000		₹	-
						120		₹	-
•							Sub Total	3	

University	National Institute of Technology, Raipur	Team Name Team United Racing	Car#	94	Asm Cost	. 8	36.23
System	Suspension				Qty		1
Assembly	Front A-Arm Lower Assembly		FileLink1				
P/N Base	A7100		FileLink2		Extended Co	8	36.23
Suffix	AA		FileLink3				
Dotaile							

ItemOrder	Part	Part Cost		Quantity	Sub Total
10	Heim joint (M10)	₹	160.00	2.00E+00	₹ 320.00
					₹ -
					₹ -
					₹ -
					₹ -
					₹ -
					₹ -
					₹ -
					₹ -
				Sub Total	₹ 320.00

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub	Total
10	MS pipe(OD 14mm ID	A arm Material	₹ 180.00	1000	mm							1.30E-01	₹	23.40
20	MS plate	Gusseting and Shock up Mo	₹ 146.25	1000	gm							150.00	₹	21.93
													₹	-
													₹	-
													₹	-
													₹	-
													₹	-
												Sub Total	₹	45 33

ItemOrder	Process	Use	Un	itCost	Unit	Quantity	Multiplier	Mult. Val.	Sul	Total
10	Lathe Work	making housing for heim	₹	100.00		2	1	1	₹	200.00
20	Welding	Joining Housing to Arms &	₹	9.75	cm	10		1	₹	97.50
30	Assemble, 1 kg, Line-	Assembling arms to Mount	₹	8.13		2	1	1	₹	16.26
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	₹	398.26

ItemOrder	Fastener	Use	Uni	tCost	Size1	Unit1	Size2	Unit2	Quantity	Su	b Total
10	Bolt, Grade 8.8	Attach A-Arms to Frame	₹	13.96	8	mm	50.8	mm	4	₹	55.84
20	Nut, Grade 8.8 (SAE	Attach A-Arms to Frame	₹	2.90	8	mm			4	₹	11.60
30	Washer, Grade 8.8	Attach A-Arms to Frame	₹	0.65	8	mm			8	₹	5.20
										₹	-
										₹	-
										₹	-
										₹	-
										₹	-
	•					•	'		Sub Total	₹	72.64

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

University National Institute of Technology, Raipur
System Suspension
Assembly Rear H-Arm Upper Assembly
P/N Base A7200
Suffix AA
Details

Team Name Team United Racing

Car# FileLink1 FileLink2 FileLink3

Asm Cost ₹ 405.66 Qty 1

Extended C ₹ 405.66

ItemOrder	Part	Part Cost	Quantity	Sub Total
				₹ -
				₹ -
				₹ -
				₹ -
				₹ -
				₹ -
				₹ -
				₹ -
				₹ -
	•		Sub Tota	₹ -

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub '	Total
10	MS pipe(OD 14mm ID	H arm Material	₹ 180.00	1000	mm							1.50E-01	₹	25.56
20	MS plate	H arms Mounting	₹ 146.25	1000	gm							0.08	₹	11.70
													₹	-
													₹	-
													₹	-
													₹	-
													₹	-
	•			•								Sub Total	3	37.26

ItemOrder	Process	Use	UnitCost	Ur	nit	Quantity	Multiplier	Mult. Val.	Sul	b Total
10	Welding	Joining Housing to Arms &	₹ 9.7	5 cn	n	20		1	₹	195.00
20	Assemble, 1 kg, Line-	Assembling arms to Mount	₹ 8.1	3		2	1	1	₹	16.26
40	Cutting	Cutting material	₹ 13.0	0 cn	n	5	1	1	₹	65.00
50	Grinding	Grinding material	₹ 9.7	5 cn	m^2	2	1	1	₹	19.50
									₹	-
									₹	-
									₹	-
								Sub Total	₹	295.76

ItemOrder	Fastener	Use	Uni	tCost	Size1	Unit1	Size2	Unit2	Quantity	Su	b Total
10	Bolt, Grade 8.8	Attach H-Arms to Frame	₹	13.96	4	mm	50.8	mm	4	₹	55.84
20	Nut, Grade 8.8 (SAE	Attach H-Arms to Frame	₹	2.90	8	mm			4	₹	11.60
30	Washer, Grade 8.8	Attach H-Arms to Frame	₹	0.65	8	mm			8	₹	5.20
										₹	-
										₹	-
										₹	-
										₹	-
										₹	-
,	•	•			•	•	•		Sub Total	₹	72 64

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	₹	740.10
System	Suspension				Qty		1
Assembly	Rear H-Arm Lower Assembly		FileLink1				
P/N Base	A7300		FileLink2		Extended Co	₹	740.10
Suffix	AA		FileLink3				
Details							

ItemOrder	Part	Part Cost	Quantity	Sub	Total
				₹	-
				₹	-
				₹	-
				₹	-
				₹	-
				₹	-
				₹	-
				₹	-
				₹	-
	•	•	Sub Tota	1 ₹	

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub	Total
10	MS pipe(OD 16mm ID 9	H arm Material	₹ 180.00	1000	mm							2.00E-01	₹	360.00
20	MS plate	H arms Mounting	₹ 146.25	1000	gm							0.08	₹	11.70
													₹	-
													₹	-
													₹	-
													₹	-
													₹	-
		•		•	•			•			•	Sub Total	₹	371.70

ItemOrder	Process	Use	UnitC	ost	Unit	Quantity	Multiplier	Mult. Val.	Sul	b Total
10	Welding	joining mounting to frame	₹	9.75	cm	20		1	₹	195.00
20	Assemble, 1 kg, Line-	Assembling arms to Mount	₹	8.13		2	1	1	₹	16.26
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	₹	295.76

ItemOrder	Fastener	Use	Uni	tCost	Size1	Unit1	Size2	Unit2	Quantity	Su	b Total
10	Bolt, Grade 8.8	Attach H-Arms to Frame	₹	13.96	4	mm	50.8	mm	4	₹	55.84
20	Nut, Grade 8.8 (SAE	Attach H-Arms to Frame	₹	2.90	8	mm			4	₹	11.60
30	Washer, Grade 8.8	Attach H-Arms to Frame	₹	0.65	8	mm			8	₹	5.20
										₹	-
										₹	-
										₹	-
										₹	-
										₹	-
		•			•				Sub Total	₹	72.64

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

FileLink1

P/N Base A7400
Suffix AA
Details Front Knuckle assembly

FileLink2 FileLink3

Sub Total ₹ 136.32

Car#

FileLink1 FileLink2 FileLink3 Asm Cost ₹ 20,407.50 Qty 1

Extended C ₹ 20,407.50

Extended C ₹ 31,401.22

ItemOrder	Part	Part Cost		Quantity	Su	b Total
10	Conespacer	₹	80.00	8.00E+00	₹	640.00
					₹	-
					₹	-
					₹	-
					₹	-
					₹	-
					₹	-
					₹	-
					₹	-
				Sub Total	₹	640.00

ItemOrder	Material	Use	UnitCost		Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub	Total
10	Retaining Ring,	Keeping Heim in place	₹ 45.	82	62	mm							2.00E+00	₹	91.64
				П											
														₹	-
														₹	-
														₹	-
														₹	-
														₹	-
	•	•											Sub Total	3	91 64

ItemOrder	Process	Use	Un	nitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub	Total
10	Assemble, 3 kg, Line-	Knuckle Assembly	₹	24.38		2	1	1	₹	48.76
20	Lathe	Thread Cutting on Knuckle	₹	200.00		2	1	1	₹	400.00
30	CNC	Manufacturing Knuckle	₹	15,000.00		2	1	1	₹ :	30,000.0
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	₹ :	30,533.2

| Nut, Grade 8.8 (SAE | SAE |

University	National Institute of Technology, Raipur	Team Name Team United Racing
System	Suspension	
Assembly	Rear Upright	
P/N Base	A7500	
Suffix	AA	
Details	Rear Knuckle assembly	

ItemOrder	Part	Part Cost	Quantity	Sub Total
				₹ -
				₹ -
				₹ -
				3

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

ItemOrder	Material	Use	Uni	tCost	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	₹ 2	20,000.0
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 ₹ 20,133.2

ItemOrder	Fastener	Use	Unit	Cost	Size1	Unit1	Size2	Unit2	Quantity	Sub	Total
		Fastening A-Arms to Knucl	₹	34.91	8	mm	101.6	mm	4	₹ 13	39.64
20	Nut, Grade 8.8 (SAE		₹	2.90	8	mm			4	₹ 1	1.60
										₹	-
										₹	-
										₹	-
										₹	-
										₹	-
							_		Sub Total	₹ 1	51.24

ttemOrder Tooling Use UnitCost Unit Quantity PVF FractionIn Sub Total

Team Name Team United Racing

University	National Institute of Technology, Raipur
System	Suspension
Assembly	Shock Up Assembly
P/N Base	A7600
Suffix	AA
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

 Car #
 94
 Asm Cost ₹ 7,838.60

 Qty
 1

 FileLink1
 FileLink2
 Extended C
 ₹ 7,838.60

 FileLink3

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub	Total
10	Metallic Plate AISI 413	Shock Up Mounting	₹ 146.25	1000	gm	250	gm					2.50E-01	₹	36.56
													₹	-
													₹	-
													₹	-
													₹	-
													₹	-
	•							•				Sub Total	₹	36.56

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub	Total
10	Assemble, 3 kg, Line-	Assembling Shocks to Mou	₹ 24.38		4	1	1	₹	97.52
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	₹	182 02

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total
10	Bolt, Grade 8.8	Fastening Shock up to mor	₹ 37.63	10	mm	76.2	mm	8	₹ 301.04
20	Nut, Grade 8.8 (SAE	Fastening Shock up to mor	₹ 4.32	10	mm			8	₹ 34.56
30	Washer, Grade 8.8	Fastening Shock up to mor	₹ 0.65	10	mm			16	₹ 10.40
									₹ -
									₹ -
									₹ -
									₹ -
									₹ -
	•	•			•	•		Sub Total	₹ 346.00

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

University National Institute of Technology, Raipur System Wheels, Wheel Bearings and Tires Assembly Front Hub Assembly P/N Base A8000 Suffix AA Details

Team Name Team United Racing

Car#

Asm Cost ₹ 3,844.47 Qty 1

FileLink1 FileLink2 FileLink3

94

Extended ₹ 3,844.47

ItemOrder	Part	Part Cost		Quantity	Sub	Total
10	Bearing	₹	1,270.00	2.00E+00	₹	2,540.00
					₹	-
					₹	-
					₹	-
					₹	-
					₹	-
					₹	-
					₹	-
				Sub Total	₹	2,540.00

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub	Total
10	Metallic Plate (8.5 mm)	Hub Flange (towards tyre)	₹ 146.25	1	kg						7.85	0.61600	₹	90.09
20	Metallic Plate (6.5 mm)	Hub Flange (towards disc)	₹ 146.25	1	Kg						7.85	0.46	₹	67.57
30	EN-19 Hollow Cylindrical Pipe (60 mm)	bearing housing	₹ 180.00	1	Kg						7.85E+00	0.46	₹	83.05
													₹	-
													₹	-
													₹	-
													₹	-
	•	•			•	•		•	•	•	•	Sub Total	₹	240.71

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub	Total
10	Assemble, 1 kg, Line-on-Line		₹ 8.13		2		1	₹	16.26
20	Weld	Welding Flanges to the hub	₹ 9.75	units	10		1	₹	97.50
30	Lathe Work	Groove, Collar Making and Dr	₹ 300.00		1		3	₹	900.00
40	Cutting	Removing Material from flang	₹ 13.00	cm	2	1	1	₹	50.00
								₹	-
								₹	-
								₹	-
								₹	-
	•	•	•	•			Sub Total	₹ 1	,063.76

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

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

University National Institute of Technology, Raipur
System Wheels, Wheel Bearings and Tires
Assembly
P/N Base A8100
Suffix AA
Details

Team Name Team United Racing

Car#

Asm Cost ₹ 8,573.80 Qty 1

FileLink1 FileLink2 FileLink3

Extended ₹ 8,573.80

ItemOrder	Part	Part Cost		Quantity	Sub	Total
1	Car Hub Bearing		2500	2.00E+00	₹	5,000.00
					₹	-
					₹	-
					₹	-
					₹	-
					₹	-
					₹	-
					₹	-
				Sub Total	₹	5,000.00

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub 1	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

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

ItemOrder	Fastener	Use	UnitCos	t	Size1	Unit1	Size2	Unit2	Quantity	Sul	b 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 1	Total
						3000		₹	-
						120		₹	-
							Sub Total	₹	-

University
National Institute of Technology, Raipur
System
Wheels, Wheel Bearings and Tires
Assembly
P/N Base
A8200
Suffix
AA
Details
Wheel arrangement

Team Name Team United Racing

Car# Asm Cost ₹ 31,097.52 Qty 1

Extended ₹ 31,097.52

FileLink1 FileLink2 FileLink3

ItemOrder	Part	Part Cost		Quantity	Su	b Total
10	Tyre, Maxxis	₹	3,500.00	4.00000	₹	14,000.00
20	Wheel ,13",1 Piece OEM, Aluminium	₹	4,000.00	4.00E+00	₹	16,000.00
					₹	-
					₹	-
					₹	-
					₹	-
					₹	-
					₹	-
					₹	-
					₹	-
				Sub Total	₹	30,000.00

ItemOrder	Material	Use	UnitCost	Size1	Unit1	Size2	Unit2	Area Name	Area	Length	Density	Quantity	Sub To	tal
													₹	-
													₹	-
													₹	-
													₹	-
													₹	-
													₹	-
													₹	-
		•		•				•		•	•	Sub Total	₹	

ItemOrder	Process	Use	UnitCost	Unit	Quantity	Multiplier	Mult. Val.	Sub	Total
10	Assemble, 3 kg, Line-on-Line	Assembly of Rim and Tyre	₹ 24.38		4		1	₹	97.52
20	Wheel Balancing		₹ 200.00		2		1	₹	400.00
								₹	-
								₹	-
								₹	-
							Sub Total	₹	497.52

ItemOrder	Fastener	Use	UnitCost	Size1	Unit1	Size2	Unit2	Quantity	Sub Total
10	Lug Nut (M 13)	Fixing Wheels to Hub	₹ 20.00					12	₹ 240.00
20	Lug Bolt (M 13)	Fixing Wheels to Hub	₹ 30.00					12	₹ 360.00
									₹ -
									₹ -
									₹ -
									₹ -
									₹ -
								Cult Total	₹ 600.00

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

Author Harshit Gupta
Published Shreyash Royzada
Revision Ayush Tiwari