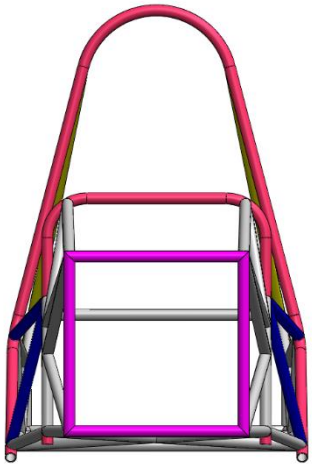
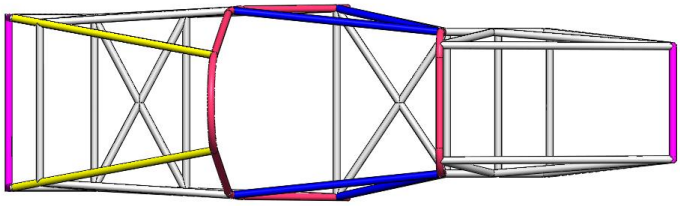
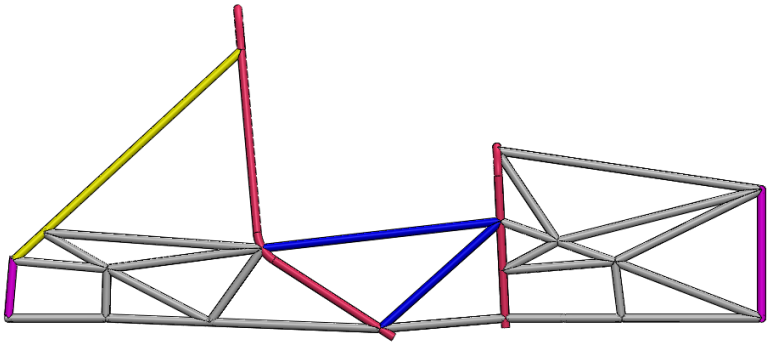
Orthographic images of CAD model of Chassis

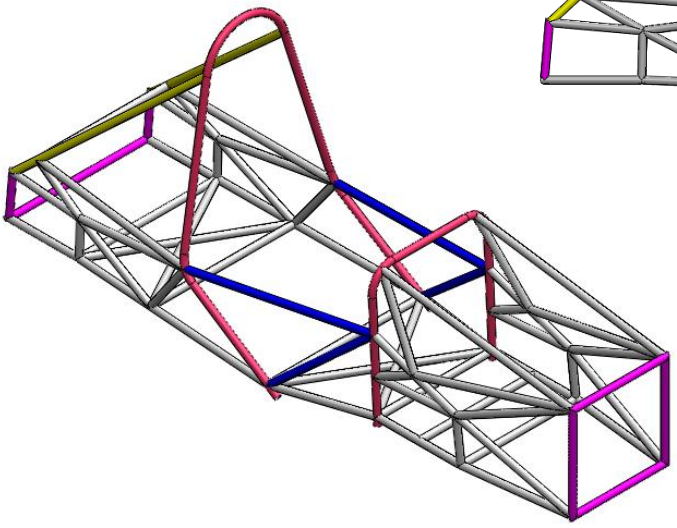
COLOUR CODING :

ROLL HOOPS	
FRONT AND REAR BULKHEAD	
ROLL HOOP BRACINGS	
SIDE IMPACT STRUCTURES	

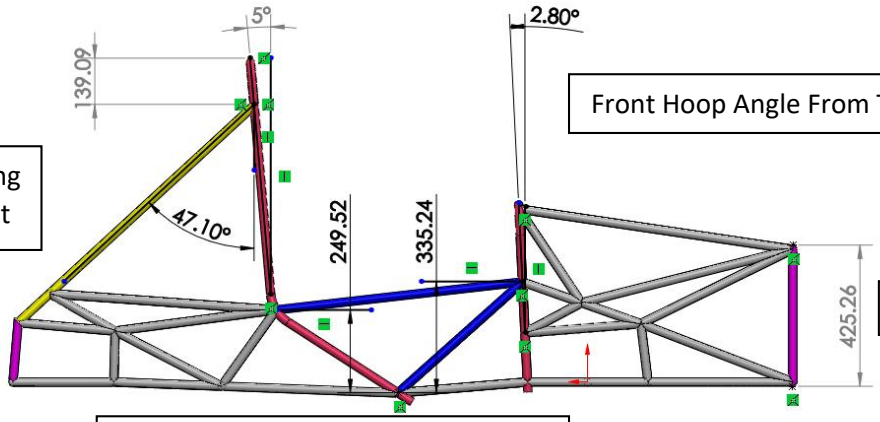








Main Hoop Angle From The Vertical

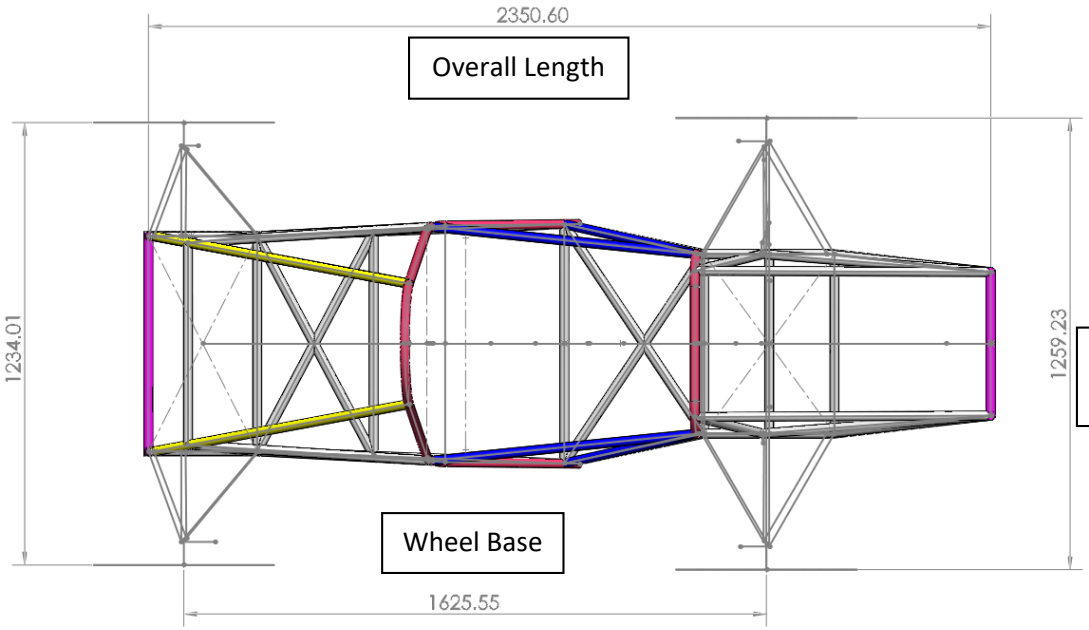


Front Hoop Angle From The Vertical

Main Hoop Bracing Angle And Height

Front Bulkhead

Upper Side Impact Structure

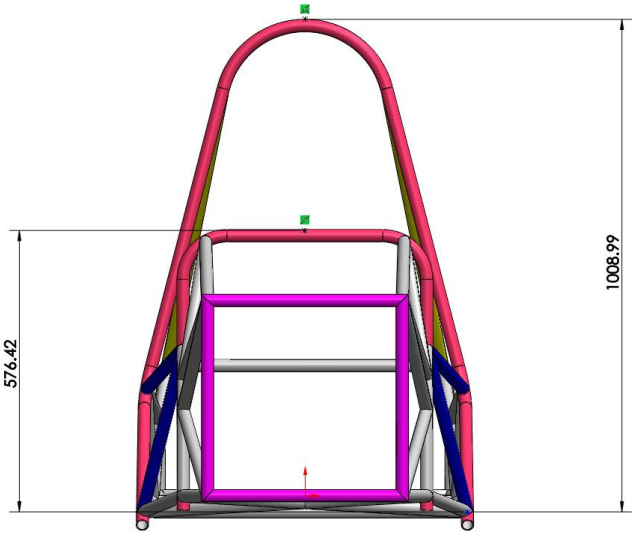


Overall Length

Rear Track Width

Front Track Width

Wheel Base



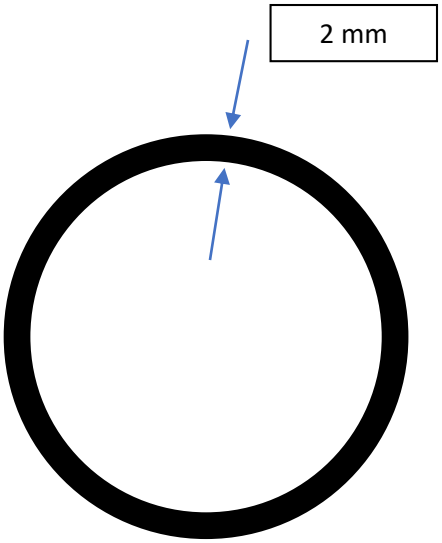
Front Hoop Height

Main Hoop Height

Material Property	
Material type	Steel
Tube shape	Round
Material name /grade	Steel
Youngs Modulus, E	2.00E+11
Yield strength, Pa	3.05E+08
UTS, Pa	3.65E+08
Yield strength, welded, Pa	1.80E+08
UTS welded, Pa	3.00E+08

Tube OD, mm	25.4
Wall, mm	2.0

OD, m	0.0254
Wall, m	0.0025
I, m^4	1.19319E-08
EI	2.39E+03
Area, mm^2	179.9
Yield tensile strength, N	5.49E+04
UTS, N	6.56E+04
Yield tensile strength, N as welded	3.24E+04
UTS, N as welded	5.40E+04
Max load at mid span to give UTS for 1m long tube, N	1.37E+03
Max deflection at baseline load for 1m long tube, m	1.16E-02
Energy absorbed up to UTS, J	8.21E+00



Material Property	
Material type	Steel
Tube shape	Round
Material name /grade	Steel
Youngs Modulus, E	2.00E+11
Yield strength, Pa	3.05E+08
UTS, Pa	3.65E+08
Yield strength, welded, Pa	1.80E+08
UTS welded, Pa	3.00E+08

Tube OD, mm	25.4
Wall, mm	1.2

OD, m	0.0254
Wall, m	0.0025
I, m^4	1.19319E-08
EI	2.39E+03
Area, mm^2	179.9
Yield tensile strength, N	5.49E+04
UTS, N	6.56E+04
Yield tensile strength, N as welded	3.24E+04
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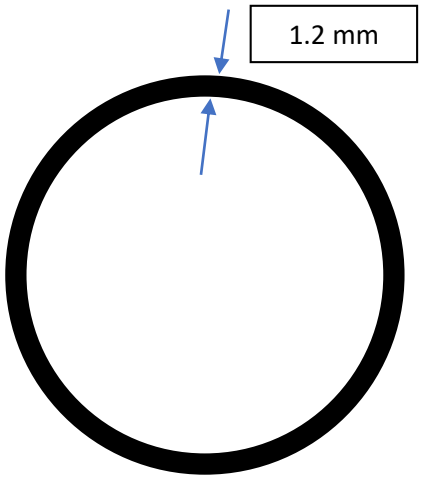
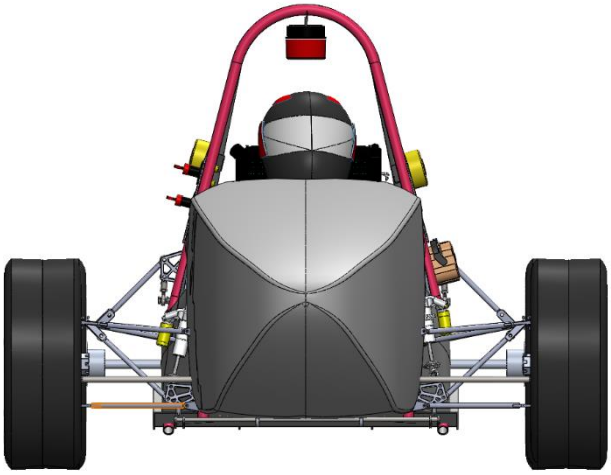
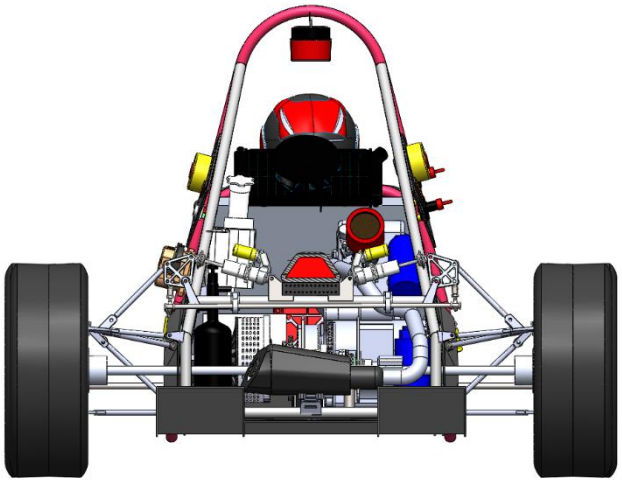
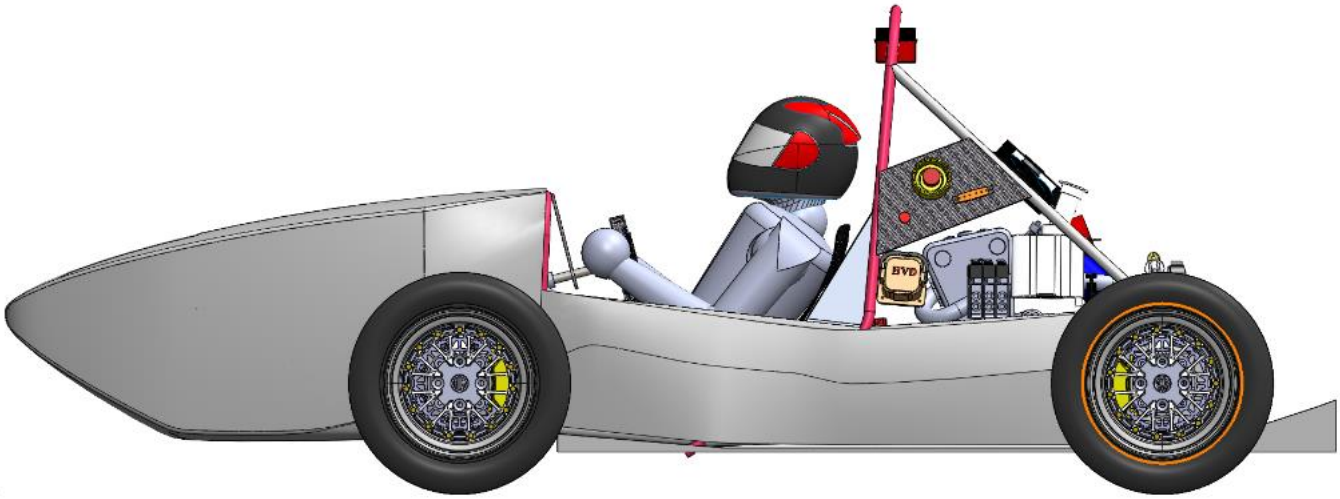
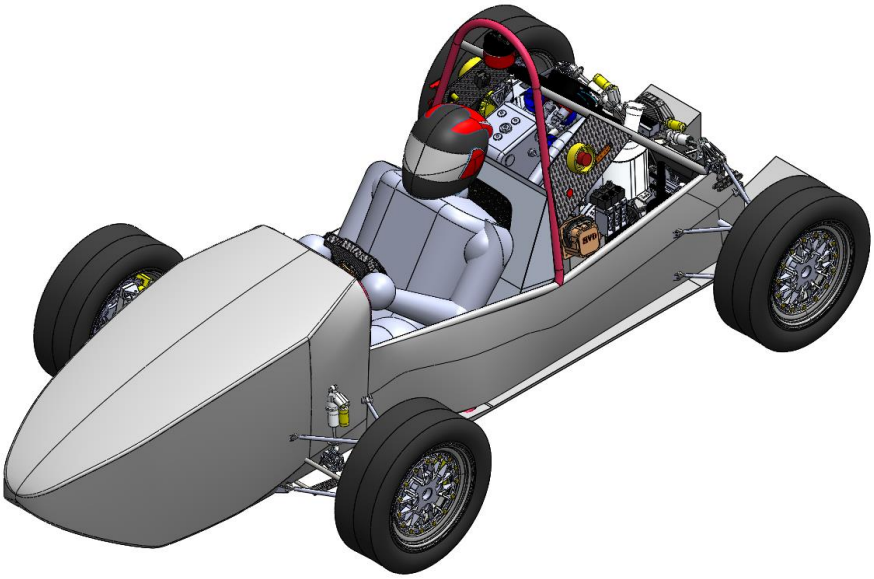


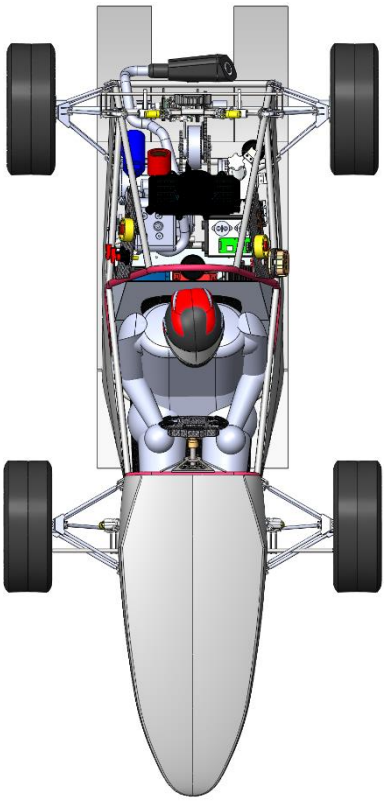
CAD OF THE FULL ASSEMBLY OF TU20







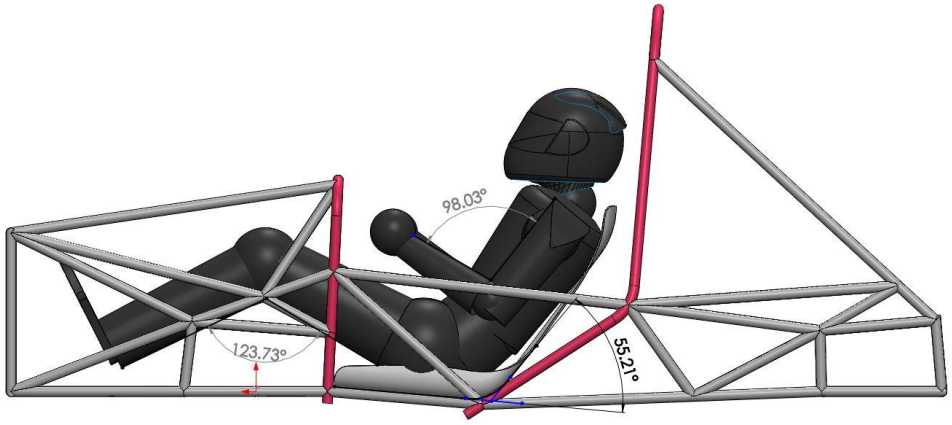


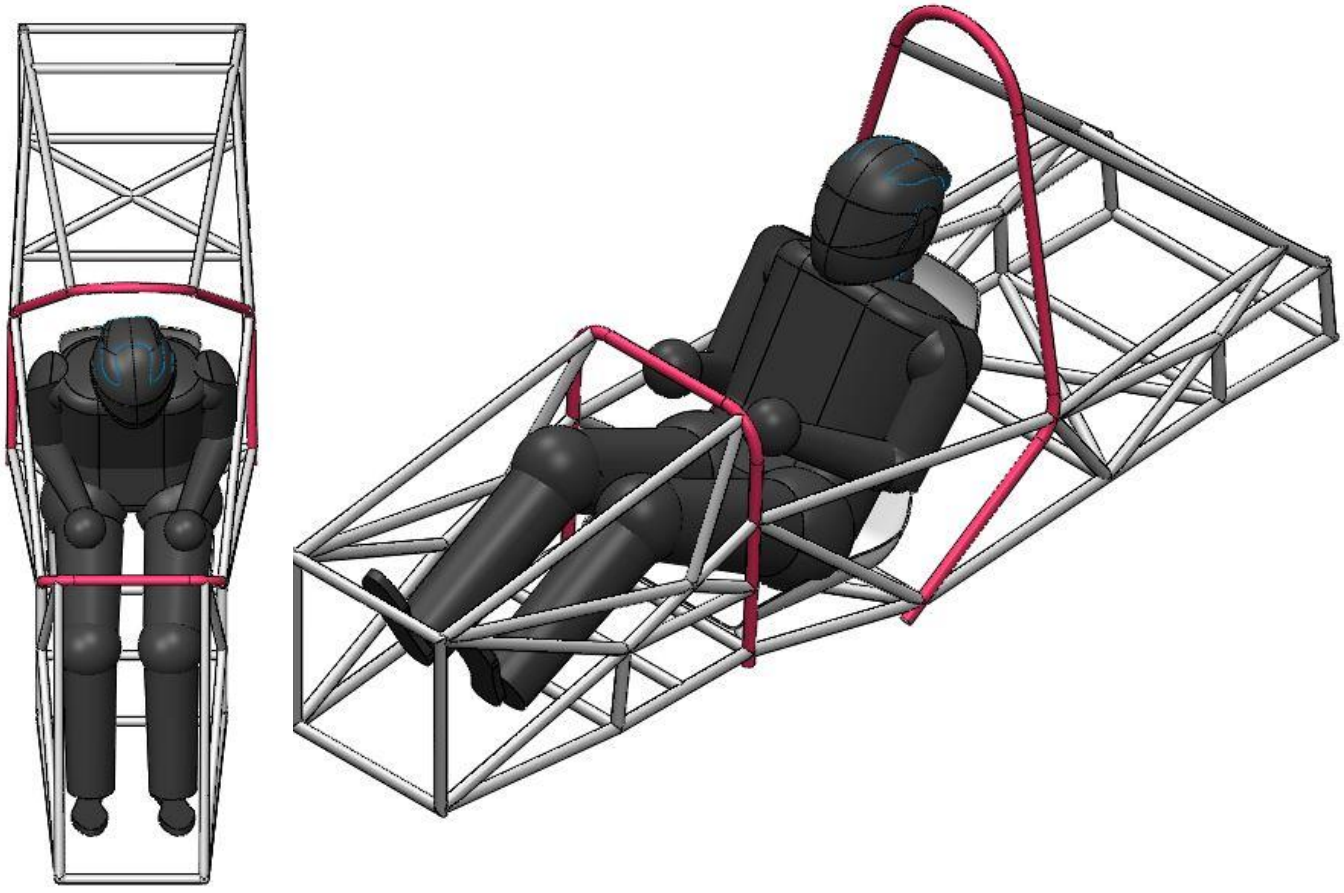


OCCUPANT PACKAGING

The purpose of the seat is to comfortably constrain the driver to the chassis while allowing easy mobility of his/her arms while steering and shifting. By transferring the driver's weight and all consequential forces to the chassis, the seat contributes to higher performance on events, especially acceleration.

The seat was broken into 7 main sections to cover the major biometrics and also to accommodate CAD struggles giving a final angle of 55.21®





COMPONENT PACKAGING