Task: To design a model of car consisting of chassis, shell, and 4 wheels using Solid works.

Limit of dimensions: 4-inch Height, 4-inch Width, 8-inch length

Approach:

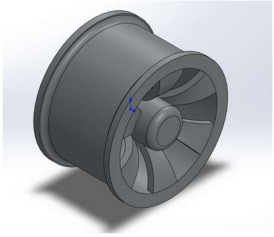
Started by planning the dimensions of the parts. The wheels were made by making rim by the cross section and using revolved boss/base. The tire was made using a circle then by using extrude boss/base using by using thin feature in it. The axle was made using circles and extrude boss/base. Two tires, two rims and axle was used in making the assembly of the wheels. The chassis and shell were made by making its base's top view and extruding it and added other features using circles, rectangles, extruded boss/base and extruded cut in them. Finally, the parts were assembled in "Final assembly.SLDASM".

Parts:

1. Rim:

Filename: wheel 1.SLDPRT

Isometric View:



2.Tire:

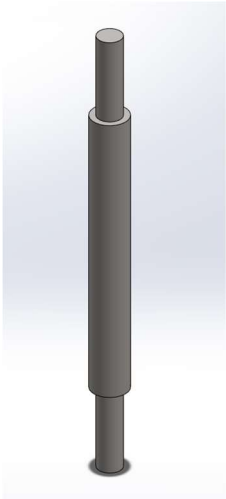
Filename: wheel 2.SLDPRT

Isometric View:

3.Axle:

Filename: axle.SLDPRT

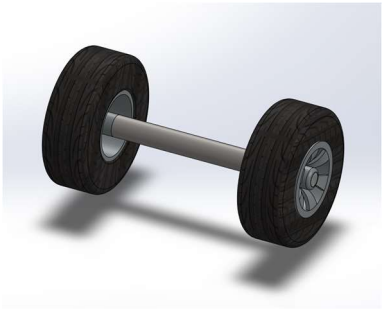
Isometric View:



4 Wheel Assembly:

Filename: wheel 3.SLDASM

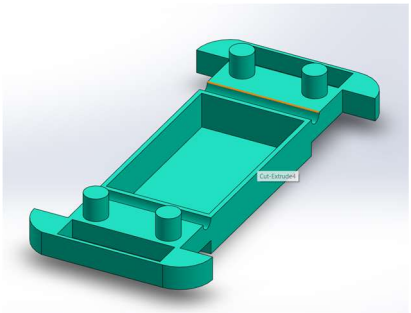
Isometric View:



5. Chassis:

Filename: Chassis.SLDPRT

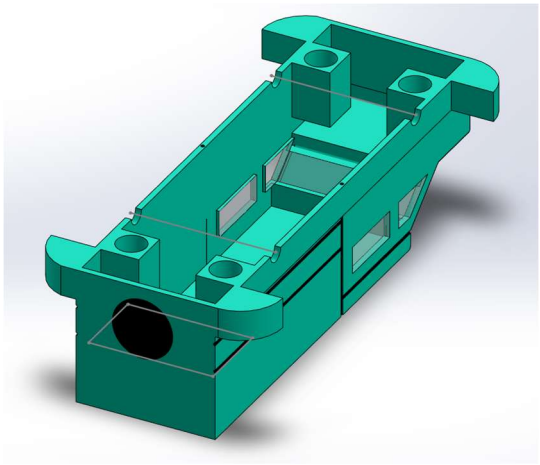
Isometric View:



6. Shell:

Filename: Shell.SLDPRT

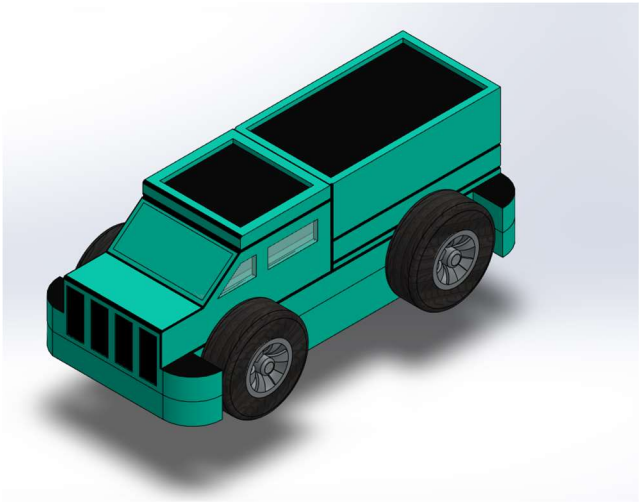
Isometric View:



7: Final Assembly:

Filename: Final assembly.SLDASM

Isometric View:



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