

TASK DESCRIPTION

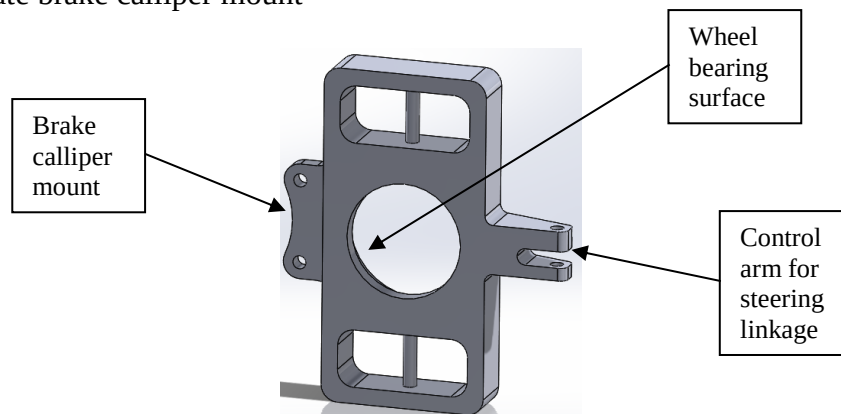
Using the SolidWorks Computer Aided Engineering software, you are required to construct an assembly of the following parts:

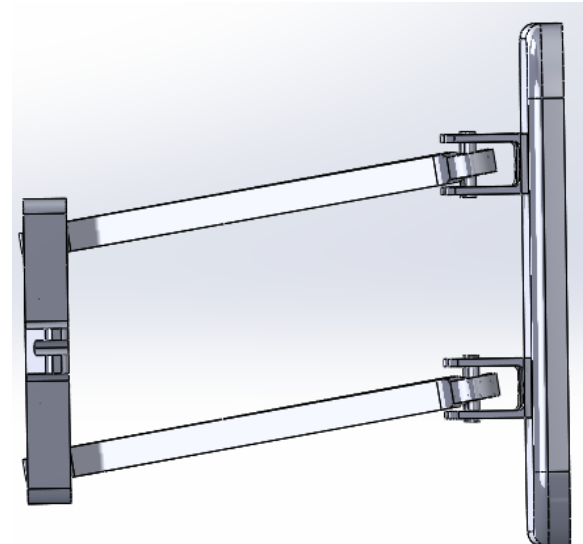
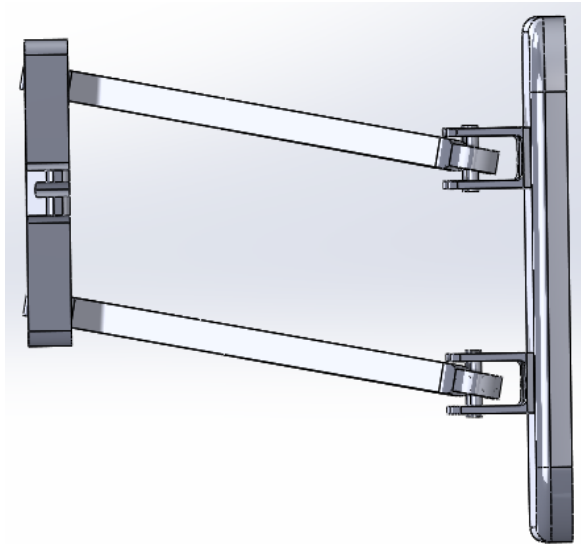
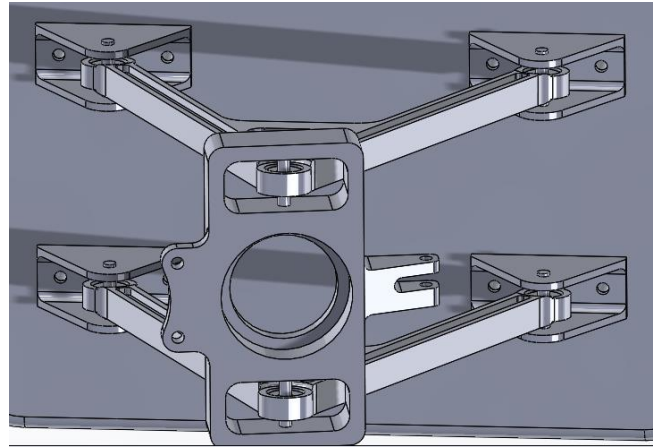
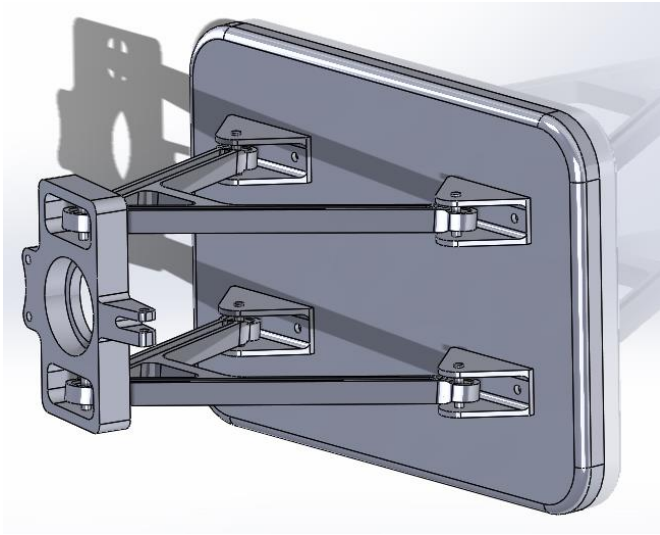
- Wishbone_Arm
- Rose-Joint_Insert
- Suspension_Mount_Brkt
- Chassis_Plate
- Suspension_Upright

The **Wishbone_Arm**, **Rose-Joint_Insert**, **Suspension_Mount_Brkt** and **Chassis_Plate** geometry have already been modelled and should be downloaded from Moodle as separate part (.SLDPRT) files. You are required to position and constrain each of the components within the assembly in order that the inter-part assembly geometry is correct.

You are required to build the **Suspension_Upright** geometry around the other parts, paying due regard to their position, dimensions and form. The **Wishbone_Arms** should be constrained to be parallel during suspension articulation. You are free to establish appropriate dimensions for the remaining undefined **Suspension_Upright** geometry. It is therefore expected that each student will produce a unique model. Suggested features to include on your Suspension_Upright model include;

- A shouldered wheel bearing surface
- A control arm for a steering linkage
- An appropriate brake calliper mount





The Recommended Assembly Configuration

GUIDANCE FOR STUDENTS IN THE COMPLETION OF TASKS

- 1) Create correct Part Geometry
- 2) Use a range of appropriate tools when modelling
- 3) Manage and organise the part structure
- 4) Create a suitable assembly structure with appropriate mating conditions and degrees of freedom.

It is advised that regular saves are carried out during the lab session in case of IT/software crashes or interruptions.

Remember, if you include a part in the assembly and it's not on the CD or has had its file name changed since you've included it in the assembly, the part will be missing when the assembly is opened for marking.