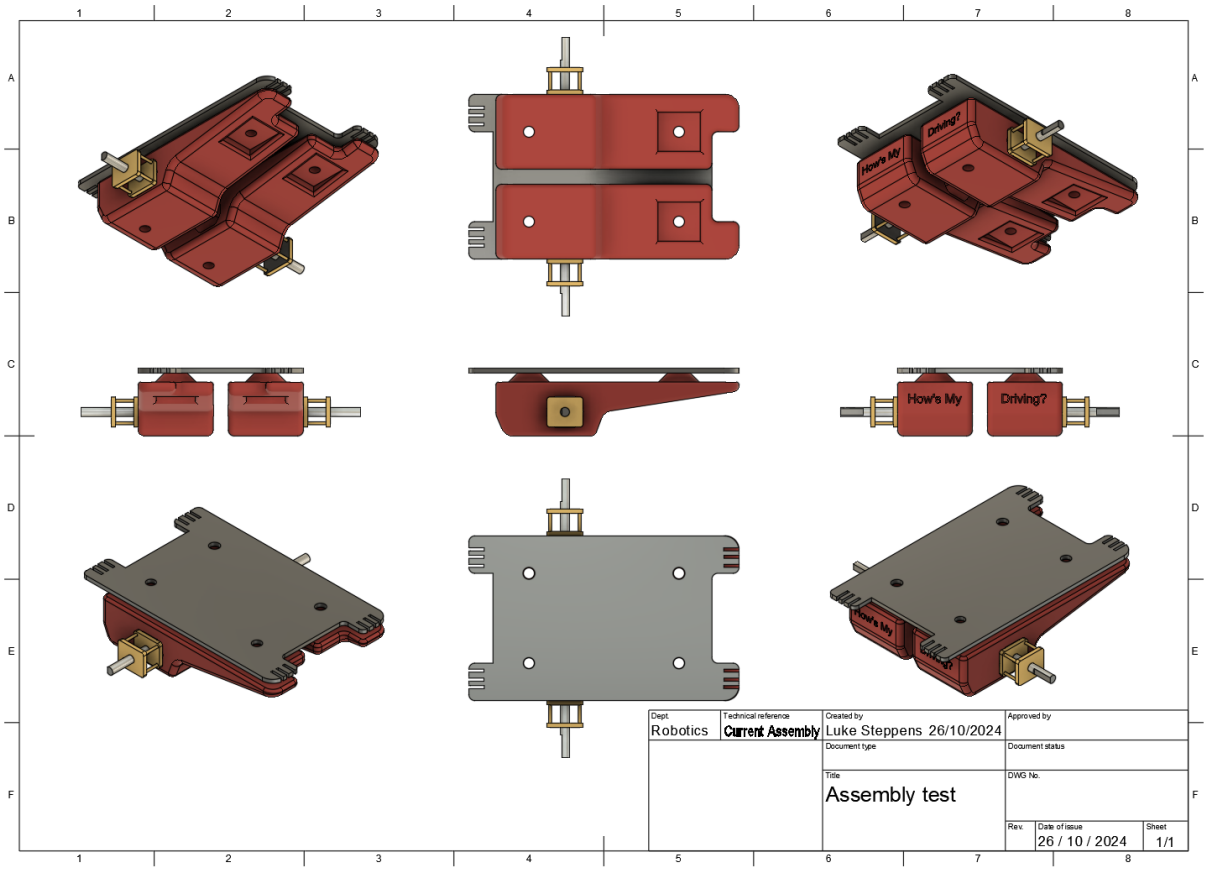
Workshop 5 - CAD 2 - 3D Printing

Friday 25th October

We were asked to carry on working on our motor mounts and overall assembly covering all the parts we have made.



Assembly test v7.f3z

We were then asked to start thinking of a shell and pivot point we could design for the mice.

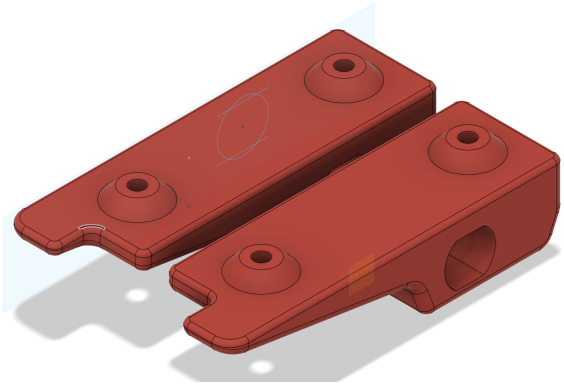
Next we moved on to setting up our laptops to work with the laboratory 3D Printers using a program called Orcaslicer.

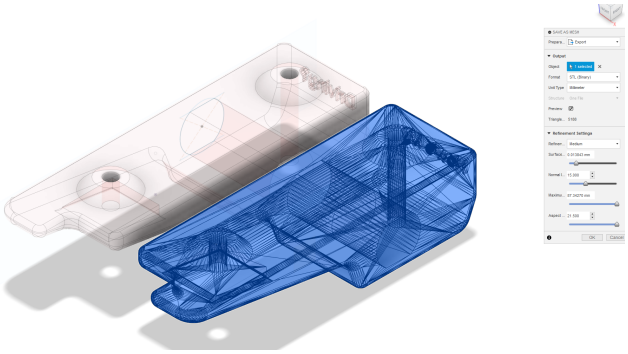
This is the official build not to be confused with the OrcaSlicer website which is not.

https://github.com/SoftFever/OrcaSlicer

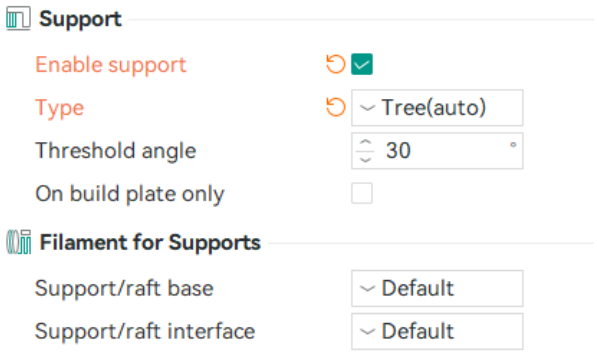
We moved onto the device setup using this guide. 4 printers were added in total

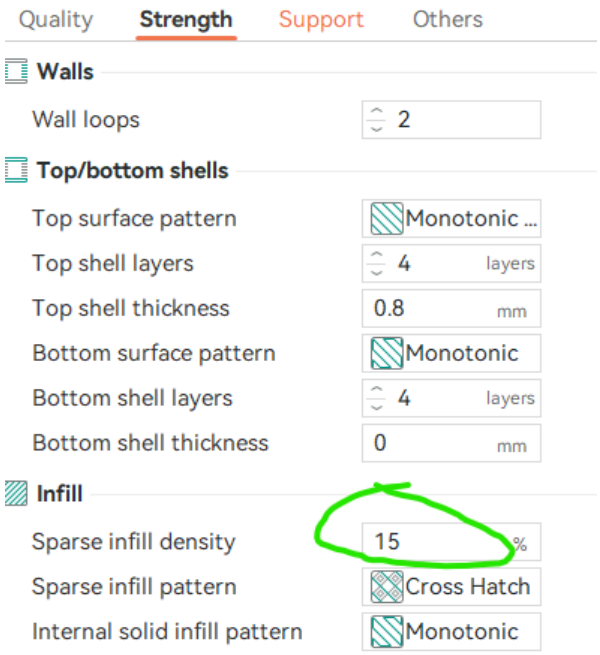
My motor mounts had a left and write side so i chose to just print one half. First we save as mesh and we can choose the preview option where the refinement option can increase or decrease the detail by increasing or decreasing the polygons.





Going back to Orcaslicer we learned of several options such as supports and strength. With supports set to tree it uses less fliament and doesnt really have a down side, then with strength our sparse infill density dictates how densly the object will be filled. The micromice being lightweight I felt no need to make it more dense. Maybe more weight will be helpful, but I that can be determined after testing.





Within the preview mode of OrcaSlicer we can look at how densly packed the infil is by using the slider on the right.

The right hand side also shows estimated time and amount of filament used.

https://prod-files-secure.s3.us-west-2.amazonaws.com/6d327d71-a800-4bb7-a305-2462de459e8c/c49829ba-dc98-4af1-a961-952e3096e89a/IMG_3064.mov

With Everything ready went went across to the laboratory and printed our motor mounts.

COMP207-W5-WKSP-CAD_2_3D_PRINTING.pdf