Fusion 360

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Fusion 360 is and Autodesk product for CAD CAM. It is free (as in beer) for students, educators and start-ups. Fusion360 is used by The Edge programming staff when parametric design is an important requirement of a delivery or engagement. We use parametric design to re-use designs, mainly changing material dimensions (thickness), tooling and design scaling.

For example of internal work done with fusion 360 check out.

- Milkcrate Shelving
- Asgard Stool
- Laptop storage boxes

Installation

Fusion 360 can be installed either with a web streamer (a small application that then downloads the full install) or from a full download. As the app is updated frequently, and most updates break backward compatibility we often have installs that are out of sync, leaving files un-openable. Fusion360 by default also installs for **one user** only.

For these reasons we recommend using the full *admin* install, and download the latest version which can always be found here[1]. Install it from an admin command prompt with;

```
"Fusion 360 Admin Install.exe" --globalinstall
```

Tips and Tricks

Parametric Design

The tips to successful parameter usage, that is avoiding the dreaded "Over Constrained" errors.

Make sure that your parameters are controlling only a single dimension at a time. For example - a rectangle that has a length, width is fine. But if you add a curve with a radius that intersects two edges, and then dimension that curves radius… you have a problem because the radius limits how far apart the sides can be.

[1]

For more detailed instructions on lab usage consult this document.
advanced_fusion360_lab_installation_instructions_en-gb.pdf