



# Fusion 360

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# Fusion 360

[Fusion 360](#) is an 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](#)
- [component draws](#)

## 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](#)<sup>1)</sup>. Install it from an admin command prompt with;

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

## learning Fusion

Autodesk has a comprehensive curriculum for [learning](#) fusion360.

## 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.

<sup>1)</sup>

For more detailed instructions on lab usage consult this document.

[advanced\\_fusion360\\_lab\\_installation\\_instructions\\_en-gb.pdf](#)