

Lesson 3

Flashlight

Just because you have a 3D printer doesn't mean that you have to use it to print all the parts of a design. If you can find a part that does not need to be printed, don't print it. Look for material substitutes for dowels, slabs, and tubes. Use 3D printing for what it does best: allows you to design parts that cannot be easily produced using other available means.

Recommended age range 10+

Category: Beginner lesson

Tags: 3D CAD, 3D printing, 3D printed, beginners, design, education

Software: Tinkercad, Openscad, Fusion 360

Lesson Duration: Two to three 45 minute classes (additional time to print)

Estimated filament use (per person):
~1.95m/~15g

PROJECT OBJECTIVES

- Design and measure with precision
- Demonstrate how to align objects
- Understand and execute boolean operations
- Prepare a model for 3D printing
- Modify print job with Cura plugins



See [Lesson 3](#) for Instructor Slideshows, including Lesson Overview and Walkthroughs, Student CAD help sheets, and Example files.