



3Doodler Start 3D Printing Pen Maker Kit

Guide

The 3Doodler is like a handheld 3D printer. This electronic pen heats and melts thin strands of plastic, allowing you to create three-dimensional shapes and designs by “drawing” on surfaces and in the air. Because this pen is designed to be safe around children, the tip does not get hot enough to burn but is still warm. The plastic used in this pen melts at a fairly low temperature and creations can melt if placed in areas that get too warm—such as in direct sunlight.

Using the 3Doodler

Make sure to read the user manual before beginning! This document details the different functions of the 3Doodler as well as safety warnings you should be aware of before using.

We also recommend watching some instructional videos on the button features, loading/unloading plastic strands, etc., before starting to use the tool. Here are a few from 3Doodler:

- Button Features: <https://youtu.be/la0oJ5Kp12I>
- Loading Plastic and Trimming Ends: <https://youtu.be/rS9Q8hfkTZU>

Also try this general guide to get you started with the basic techniques used with 3D pens: <http://www.instructables.com/id/3D-Printing-Pen-Tutorial/?ALLSTEPS>

Types of Plastic

The 3Doodler uses two types of plastic: PLA and ABS. Both have their advantages and disadvantages. We’ve included only ABS plastics because they work the best with tracing projects, which is a great, approachable way to get started with handheld 3D printing. See 3Doodler’s chart to see how the different plastics compare here: <http://the3doodler.com/abs-vs-pla-head-to-head/>

ABS requires the high heat setting, so make sure the 3Doodler is set to high. If you’d like to supplement the filament strands in the kit, or try a different type of plastic, you can order

strands directly from 3Doodler, or find them at different vendors like Amazon.com. You can purchase additional ABS filament from the Library (5 strands for \$1).

Starting Out

This tool gets very hot! You should never directly touch the gold metal tip of the 3Doodler during or directly following use.

Try tracing two-dimensional designs first. This will allow you to get used to the tool's speed and flow before moving on to three-dimensions.

Secondary tools like scissors, wire cutters or even small pliers are helpful for handling and finishing designs. We've included some in the kit.

Consider having additional consumable materials like cardboard or cardstock on hand to take 3D designs to the next level!

Project Ideas

3Doodler's website has many projects with detailed photos, instructions, and even printable designs for tracing with the 3Doodler. Find them here: <http://the3doodler.com/community>

Troubleshooting

If you experience problems, please contact the Reference Desk at cvref@wcpl.lib.oh.us.

Feedback

We would love to hear how your experience was! Please complete this survey:

<http://goo.gl/forms/CuU9efutyX>

Also, feel free to share photos or videos of your creations with us on social media:

<https://www.facebook.com/wclibrary.info>

<https://twitter.com/washcentlibrary>

This Maker Kit was made possible through a grant from:

