



# 3Doodler - Quick Start Guide

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## Overview

The 3Doodler is a three-dimensional printing pen. It uses heat within the pen to melt plastic inserts that create a line of colored plastic. It can be used to draw raised two-dimensional shapes on a flat surface, or can be layered to create three-dimensional objects.

## Getting Started

### Turning Pen On

- To turn on the pen, it must first be plugged into an outlet. Connect the power adapter to the pen and plug it into a power source. Take the rubber covering off of the tip of the pen.
- You can turn the pen on by selecting the correct heat for the type of plastic insert you are using (see “ABS vs PLA” below). The switch is located by the plug-in on the back of the pen. The light will remain red while warming up.
- After about 1 minute, the light on the top of the pen will turn either Blue (ABS) or Green (PLA) signaling that the correct temperature has been reached.
- Load the plastic insert into the hole at the back of the pen. Push in until plastic insert is “grabbed” by the pen. (Similar to a hot glue gun, the plastic will be pulled in by a mechanism within the pen.)

### Choosing the Right Plastic

There are different properties in the type of plastic insert you choose that will affect what it will be best used for. Basic differences are expressed below, but for more information and examples of uses of both ABS and PLA go to: [3Doodler \(ABS vs PLA - Head to head\)](#)

#### ABS

ABS is best used for: Drawing upwards, building structures upon previously drawn plastic, creating bendable plastic, and peeling the plastic off paper. A possible use for this type of plastic would be to create a 3D object such as a cube. The 3Doodler recommends practicing with this material first.

#### PLA

PLA is best used for drawing sharp angles, building structures upon previously drawn plastic, adhering to the paper, glass, metal or ceramics, and creating translucent plastic. A possible use of this type of plastic

could be creating tactile graphics for persons with visual impairments. This material is more brittle and may snap when bent.

## Using the Pen

### Releasing the Plastic

- Towards the front of the pen are two, arrow buttons which determine the speed at which the plastic will be released from the pen. The arrow pointing towards the front is FAST and the arrow pointing towards the back of the pen is SLOW. Holding down either of these buttons will make the pen release a thin strip of plastic until the button is released.

### Manipulating the Plastic

- After releasing either of the buttons, the pen will stop extruding plastic, but the plastic will remain connected to the pen. You have options for how to continue:
  - While the plastic is still warm, pull the pen away from the drawn line. Note: this may create a thin, cob-web-like string or may pull/bend the plastic you have just drawn.
  - Wait until the plastic has cooled, and cut the end of the plastic with a scissors with your other hand—disconnecting the plastic from the tip of the pen.
  - Wait until the plastic has cooled, and continue drawing in a different direction or layer more plastic on top of the previously drawn line. Note: If the plastic has not cooled and become firm, then continuing to draw may bend the last line drawn.

### Changing Plastic Inserts or Finishing Use

- When finished using a plastic insert, or to change inserts, you must remove it from the back side of the pen. To do this, first press both of the arrow buttons simultaneously. The light should begin blinking. The plastic insert will begin moving in reverse. When this stops, you may pull out the insert. Then, release all remaining plastic by pressing either of the arrow buttons. You also find the metal poking tool useful to push the remaining partially melted plastic out of the device.
- Cut any extra plastic off the tip of the pen, and insert your new plastic insert using the previously stated directions. If possible, you may also cut the melted plastic off your used insert and save for later use.

## Turning Off the Pen

- Before switching off the pen, the plastic inserts must be removed as explained in the previous section. Remove any residual plastic by turning the setting to ABS (Blue light) on the back of the pen and press either of the arrow buttons until no more plastic is released.
- Turn the pen off by placing the switch into OFF mode. This will be in between the ABS and PLA settings.

- Unplug the pen and let it cool completely before putting into storage.

## **Program Manufacturer Contact Info**

3Doodler-First Edition—WobbleWorks, Inc.

[www.the3Doodler.com](http://www.the3Doodler.com)

\$99.00