

# 3Doodler

The 3Doodler is a pen that is, in a way similar to the 3D Printers. This pen melts ABS and PLA strands which get pushed down through the extruder so that you can create 3D objects with your own hands. Now you can literally draw your own 3D designs.

## STEP 1: Turn on your 3Doodler

- Plug in the Power Adapter into both the 3Doodler and an outlet, the plug port is the larger slot at the end of the pen.
- Slide the control switch from OFF to HI to begin the heating process.
- A **RED** light will turn on while the pen is reaching the correct temperature to melt your plastic. Once the light changes to **BLUE** your pen is now ready to extrude plastic.

## BELOW IS FOR LOADING ABS PLASTIC ONLY!

*(PLA Plastics are loaded differently.)*

## STEP 2: Load and Extrude ABS Plastic

- While making sure the light is still **BLUE**, insert one strand of ABS plastic through the plastic loading port. The medium sized hole at the end of the pen by the Power plug.
- There are two buttons on the surface of the pen, Slow and Fast, drawn here: Hold the Fast button, the larger one with more scribbles.
- Gently grip and turn the plastic clockwise while pushing it into the pen until you feel the plastic strand being pulled in by the Drive Gear.
- After about 10-15 seconds, the plastic will begin extruding from the Nozzle.
- If you were recently using another plastic, the color of the plastic may take a second to change colors to the ABS Plastic you are using.
- Release the Fast button to stop extruding.



## BELOW IS FOR LOADING PLA PLASTIC ONLY!

*(ABS Plastics are loaded differently.)*

## STEP 3: Load and Extrude PLA Plastic

- With the pen on HI and making sure the light is still **BLUE**, insert one strand of PLA plastic through the plastic loading port. The medium sized hole at the end of the pen by the Power plug.
- There are two buttons on the surface of the pen, Slow and Fast, drawn here: Hold the Slow button, the smaller one with fewer scribbles.
- Gently grip and turn the plastic clockwise while pushing it into the pen until you feel the plastic strand being pulled in by the Drive Gear.
- If you were recently using another plastic, the color of the plastic may take a second to change colors to the PLA Plastic you are using.
- After about 10-15 seconds, the plastic will begin extruding from the Nozzle.
- Slide the control switch to LO setting. The light will turn **GREEN**.
- Release the Slow button to stop extruding.



#### STEP 4: Doodling on a flat surface with the 3Doodler

- If you wanted to doodle something, for example, your name, you may want to doodle on top of a pencil signature just to get used to the pen.
- Click the FAST button twice for continuous extruding or hold the FAST button you want to control when you extrude.
- When the plastic begins extruding press the Nozzle down onto the paper to get the plastic to stick to the surface.
- Drag the 3Doodler in a continuous unbroken line. Keep your movement slow and steady as if writing very carefully with a pencil.
- When you're done press the FAST button again or release the button to stop extruding.
- The plastic cools quickly and it should be easy to pop off your surface. If you made it on paper just bend it and it'll pop off or just pull it off with your fingers.

#### STEP 5: Doodling off a surface with the 3Doodler

- Click the Fast or Slow button twice for continuous extruding or hold the speed button you want to control when you extrude.
- Begin extruding onto the surface. Extrude enough plastic onto the surface till you have a small blob the size of a ladybug, this will be it's support when you start going up.
- Lift the pen up off the paper slowly to make an upright plastic line.
- When you want to end your line press your speed button again or let go of the button to stop extruding but **DO NOT MOVE THE PEN YET!** Wait a few seconds then pull your pen away to make a clean end and to ensure your line will not bend.

#### STEP 6: Reverse and Remove Plastic

- When you want to switch to a new plastic you'll need to remove the old one first. Turn on the pen, slide the control switch to HI, and wait till the **BLUE** light turns on. If you're inserting ABS Plastic you can insert it when the **BLUE** light comes on. If your using PLA Plastic switch the control slide to low and wait for the **GREEN** light.
- Once the correct light is on hold down both Speed buttons to send the plastic in reverse. The light will start flashing, signaling that it is now in reverse. You must hold the buttons till this process is done.
- Once the plastic stops reversing it is safe to remove it from the back of the pen by gently pulling it out.
- Cut off any partially melted plastic before putting it back into the 3Doodler. It will reduce the risk of clogging and blockage in the pen in the future.
- Plastics that are 5.3 inches and shorter can not be reversed out. You will have to use it up or you can use the Cleaning tool, a long thin rod with a handle attached, to push it out. Remove the nozzle with the Nozzle Removing Tool, similar to a wrench. To unscrew it twist it counterclockwise while the pen is still hot. Insert the Cleaning tool through the open front of the pen and gently push the excess plastic out through the back of the pen. When you're done put the nozzle back on with the Nozzle Removing Tool.

## STEP 7: Turning off the 3Doodler

- Remove all of the plastic from the pen using the directions from step 6.
- Move the control switch to OFF.
- Allow your 3Doodler to cool completely before storing it. Just like any other heated technology it could possibly melt or burn something so be careful.

## TROUBLESHOOTING, COMMON PROBLEMS, AND QUESTIONS

- If you can't get your pen to turn on, check/try the following. Is the Power Adapter plugged into a working outlet? Is the Power Adapter plug plugged into the correct port in the back of the pen? Slide the control switch from OFF to LO or HI.
- If your plastic won't stick or is curling up around the Nozzle stop extruding and do the following. Press Fast and firmly push the Nozzle onto the surface. Slowly move it to create a line of plastic across the surface. This should allow it to resume sticking to the surface or the old plastic you are adding to.
- If your plastic is in the pen but is not extruding from the Nozzle there are a couple things you can try. Your plastic may not be engaging with the Drive Gear. Gently push and turn the plastic clockwise till you feel it being pulled into the pen by the Drive Gear. If this does not work follow Step 6 and try again.
- If plastic is leaking around the base of the Nozzle it may be too loose and you'll need to tighten it with the Nozzle Removal Tool. When the pen is hot gently turn the Nozzle clockwise to tighten, use it as if it was a wrench. Stop tightening as soon as you begin to feel resistance; over tightening can cause the Nozzle to break.
- If your plastic won't stop extruding press either of the Speed buttons once. If that doesn't work unplug your 3Doodler and then try again.
- If your pen doesn't heat up try turning it off and then back on. It does take about 1-2 minutes for it to heat up so be a bit patient.