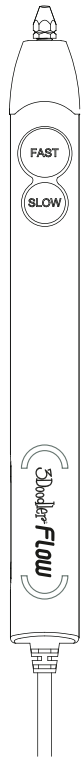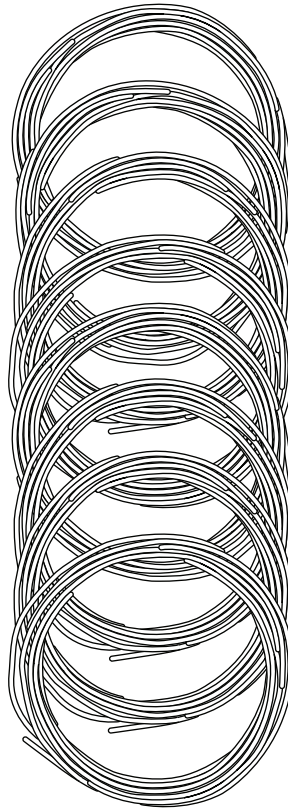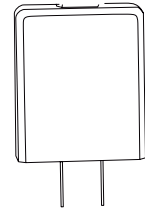## WHAT'S INCLUDED

3Doodler Flow Pen

8 3Doodler 1.75mm Spools
Colors may vary

Tool

Power Adapter

SECTION 1: WARNINGS

⚠ **WARNINGS**

- The nozzle of the 3Doodler Flow can become hot. DO NOT touch the nozzle, or you may be burned!
- DO NOT allow the nozzle near or in contact with flammable materials.
- Inform others in the area that the pen is hot and should not be touched.

Unplug to turn the pen OFF when not in use or before storing.

Allow the nozzle to cool completely before storing.

The Unblocking Tool can become hot. DO NOT touch the metal part of the Unblocking Tool after using it to clean your 3Doodler Flow or you may burn yourself!

DO NOT use the 3Doodler Flow near bathtubs, showers, basins or other vessels containing water. This could result in death due to electric shock.

The 3Doodler Flow should only be used with 3Doodler Flow filament. Misuse of your 3Doodler Flow, setting your pen to the wrong heating temperature, or use of non-approved filament or other materials may result in damage to your pen or injury to you, and will void your warranty. Injuries to the user may include, but are not limited to, harm sustained from inhaling substances that are not suitable for heating; or burns from flammable materials used in the 3Doodler Flow.

WARNING: This 3D Printing Device, when used with a styrene filament (ABS / HIPS / or PC-ABS), can expose you and others in the same room to styrene, which is a chemical known to the State of California to cause cancer. For more information, go to www.P65Warnings.ca.gov. ALWAYS OPERATE YOUR 3D PRINTING DEVICE IN A WELL-VENTILATED AREA.

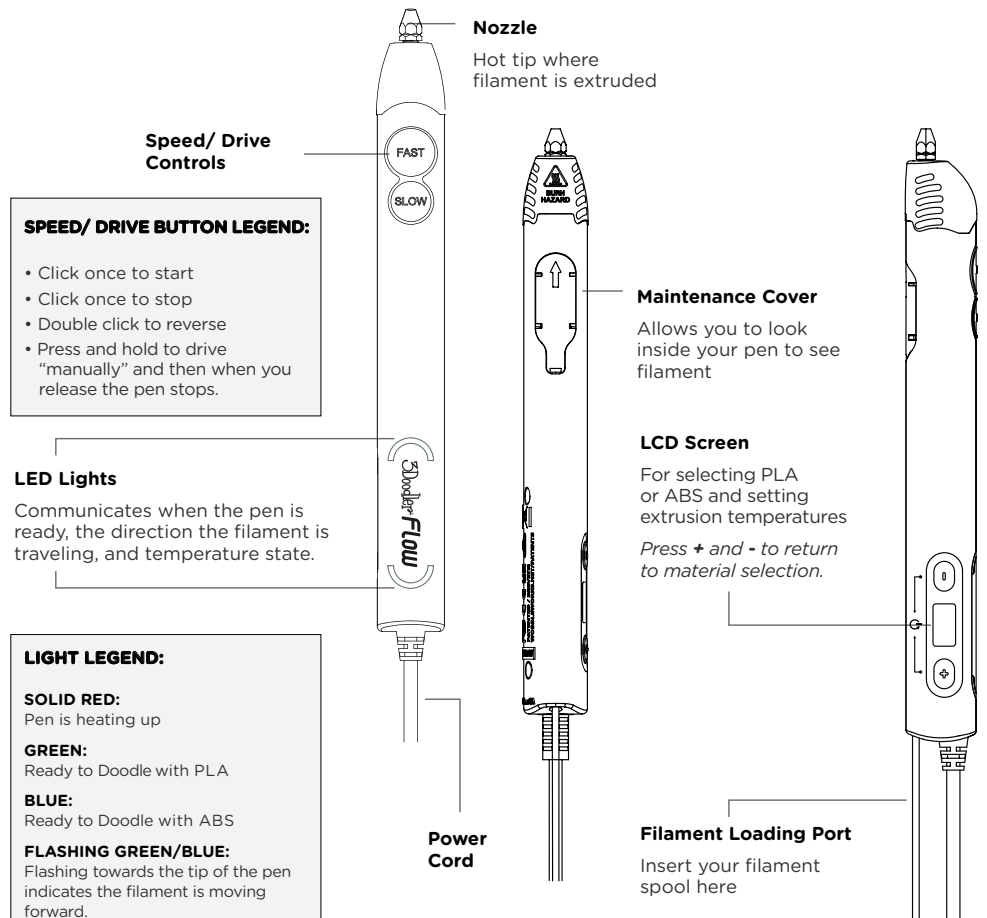## ADULT USE ONLY. KEEP OUT OF REACH OF CHILDREN.

Disposal of this product

At the end of your 3Doodler Flow's life, please do not dispose of it in your general household waste. In order to prevent possible harm to the environment or human health from uncontrolled waste disposal, please dispose of your 3Doodler Flow separately in accordance with local laws and regulations.

For more information on the separate collection systems for waste of electrical and electronic equipment, please contact your local municipal authority. You can also contact the retailer from which you purchased your 3Doodler Flow, who may have a recycling program, or be part of a specific recycling scheme that you can use.

SECTION 2: GETTING STARTED

We created this User Manual as a step-by-step guide to get you comfortable with your 3Doodler Flow and its features. Once you are familiar with these steps, you will be able to Doodle with confidence.

Nozzle

Hot tip where filament is extruded

Speed/ Drive Controls

SPEED/ DRIVE BUTTON LEGEND:

- Click once to start
- Click once to stop
- Double click to reverse
- Press and hold to drive "manually" and then when you release the pen stops.

Maintenance Cover

Allows you to look inside your pen to see filament

LCD Screen

For selecting PLA or ABS and setting extrusion temperatures

Press + and - to return to material selection.

LED Lights

Communicates when the pen is ready, the direction the filament is traveling, and temperature state.

LIGHT LEGEND:

SOLID RED:
Pen is heating up

GREEN:
Ready to Doodle with PLA

BLUE:
Ready to Doodle with ABS

FLASHING GREEN/BLUE:
Flashing towards the tip of the pen indicates the filament is moving forward.

Flashing towards the back of the pen indicates the filament is in reverse.

FLASHING GREEN/BLUE AND RED:
Material Selection

FLASHING RED:
Error (See LCD Screen for code)

Power Cord

Filament Loading Port

Insert your filament spool here

How it Works:

The 3Doodler Flow melts filament and uses a motor and gears to push it through the pen's nozzle in a thin line. This process is called extruding or extrusion, and we will refer to it throughout this user manual. Once extruded, the filament cools and hardens quickly, allowing you to draw on surfaces and in the air. This user manual will show you how!

STEP 1:

## Turn on your 3Doodler Flow and wait for it to heat up

1
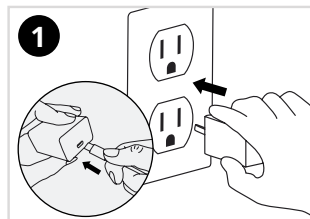
Plug the power cord into the power adapter. Plug the power adapter into the wall.

2
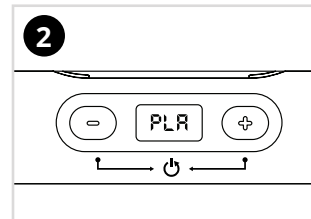
Use either +/- to select the desired filament. The back LED light will glow solid red while the front LED light will flash BLUE (ABS) /GREEN (PLA) based on the selected filament.

Click either FAST to lock in your selection. Note: your pen comes with PLA spools.
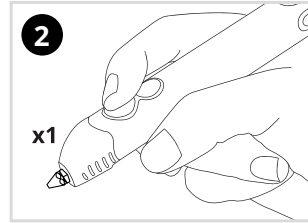
3

60-90 secs Light to GREEN
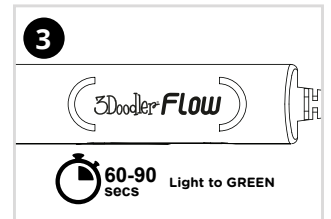
Both LED lights will glow solid RED while the pen is reaching the desired temperature. Once the lights have turned solid GREEN/BLUE, your pen is ready to extrude.
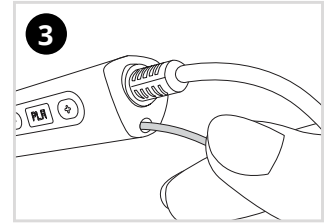
3Doodler Flow

STEP 2:
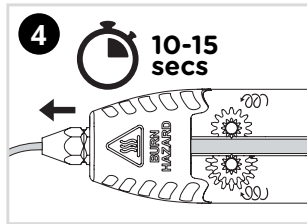## Load and extrude filament
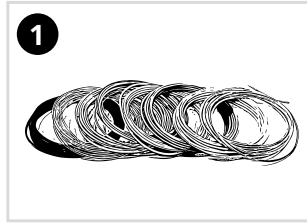
**①** Select a spool (PLA is included in the box).

② x1 Wait for the LED light to turn GREEN/BLUE. Click the FAST button once and release. You will hear the drive gear start.

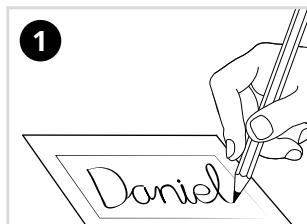**③** Insert the spool into the filament loading port, until the gears grab the spool.

④ 10-15 secs — After 10-15 seconds, the filament will begin extruding from the nozzle. Extruded filament will harden after a few seconds.
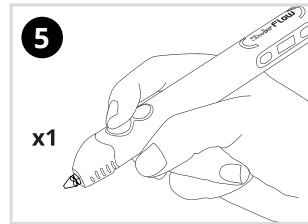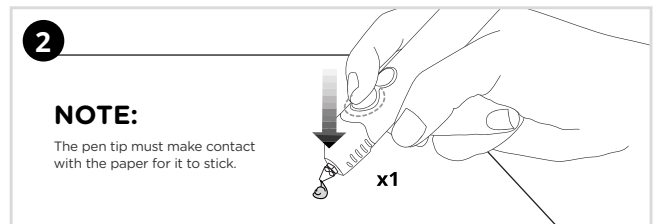
⑤ x1 Click either speed button once to stop extruding.

STEP 3:
Doodle your name

Use the box on page 4 to create your first Doodle!

① Write your name in the box provided using a marker, pen or pencil. We suggest cursive, with the letters connected.

② **NOTE:** The pen tip must make contact with the paper for it to stick. x1 — Click either speed button once. When the filament starts extruding, press the nozzle down onto paper to get the filament to stick to the surface.
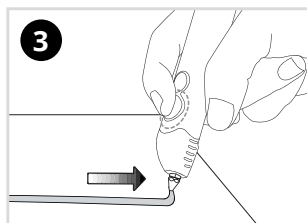
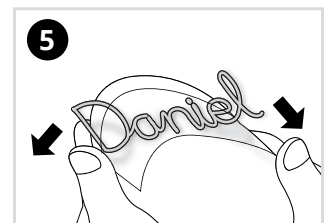**③** Trace your name in a continuous line by dragging the pen along the paper as if you were writing with a pencil, with all the letters connected. Keep your movement slow and steady. For best results, hold the pen at close to a 90˚ angle.
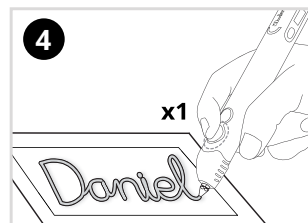
④ x1 When you are done, stop extruding by clicking either speed button once.

⑤ Wait for the material to cool and then bend the corners of your paper to pop your doodled name off the page.

Your Name:

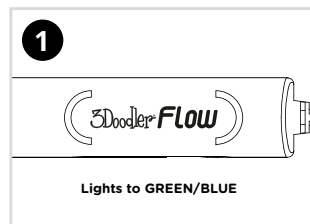**#MyFirstDoodle**

STEP 4:
Doodle Even More!

For further guides, projects and inspiration, please refer to:
- the3doodler.com/resources/
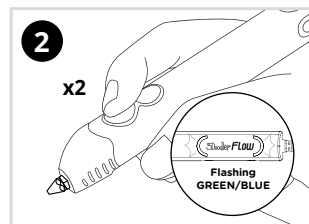- the3doodler.com/getting-started/
- the3doodler.com/help/

Here's everything you need to know about changing filament spools to change colors or filament type.
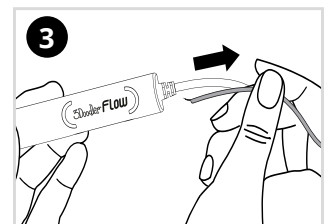
STEP 5:
Reverse and remove filament

1

(3Doodler **Flow**)

Lights to GREEN/BLUE

Make sure the pen is heated up and ready to extrude.

2

x2

Flashing
GREEN/BLUE

Double click either speed button. The back LED light will flash to signal the filament is reversing.

3

(3Doodler **Flow**)

Once the filament stops reversing, it is safe to remove it from the pen by gently pulling on the back of the spool.

TIP — **SNIP THOSE ENDS!**

After removing a spool from the 3Doodler Flow, cut and dispose of any partially melted material at the end of your spool. This will reduce blockages and clogging issues.
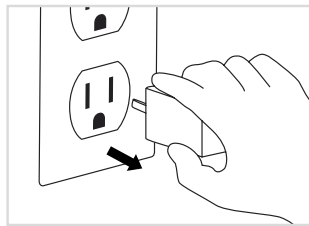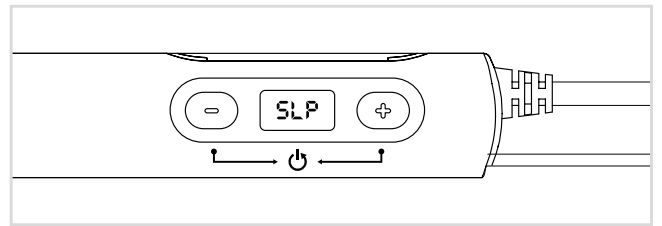
NOTE:

Fully inside
the pen
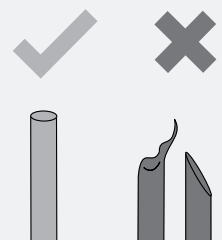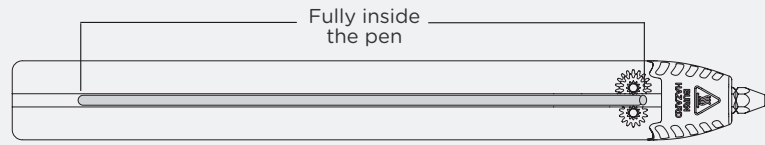
The filament that is fully within the pen cannot be reversed. You should feed it all the way through your 3Doodler Flow and use it up. Or you can push the filament out the back of the pen using your unblocking tool - See **Section 3, Step 3B.**)

STEP 6:
Power Down

Unplug it from the power source and allow your pen to cool completely before storing.

Note: Pressing **+** and **-**, it will reset to material selection. The pen will also turn off the heating system and cool the pen.

After 5 minutes of inactivity, the 3Doodler Flow heating system will automatically power down. You will need to press either speed button OR unplug it and plug it back in to continue use.

TAKE A BREAK:

We recommend powering down and giving your 3Doodler Flow a 30 minutes break after every 2 hours of continuous use.

SECTION 3: TROUBLESHOOTING

Included Tool

Before showing you how to troubleshoot issues with your 3Doodler Flow, we want to introduce you a handy tool included in the box:
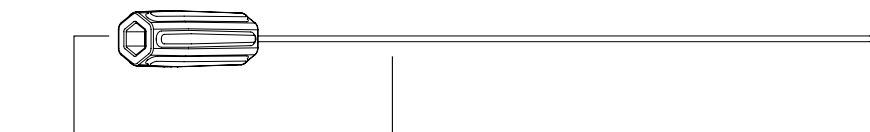
Mini Spanner

Used for tightening and removing the nozzle.

**Only remove the nozzle when the pen is on and hot.**

Do not over tighten the nozzle, as you may break it.

Unblocking Tool

Used to help push filament out the back of the pen for unblocking purposes out of the back of the pen.

With those introductions over, let's look at some different issues that could arise with your 3Doodler Flow and steps to get back to Doodling.

1.
My pen won't turn on (the LED light isn't on)
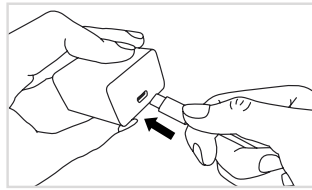
Is the USB-C cord connected into the power adapter?

NOTE:

If you have a spare power adapter please use it to test your 3Doodler Flow. You will need a DC 5V2A power supply with a USB-C port. This will help determine if the problem is with your 3D pen or with the included power adapter. Please make sure the power adapter is 20 watts or lower. This pen will not run on USB-C smart power adapters.

2.
The filament won't stick to the paper, or is curling up around the nozzle

Stop extruding and start again using the following instructions:

Push the nozzle down onto the paper, and then resume extruding plastic.

Drag the tip of the pen along the paper or surface in a continuous unbroken line as if you were writing with a pencil.

Keep your movement slow and steady. The filament should hold to the paper and not curl up around the nozzle.
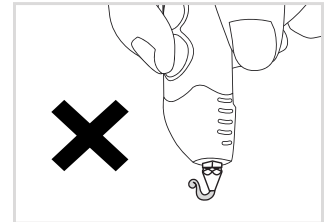
3.
The filament is not extruding from my 3Doodler Flow

**3A.   The filament is not engaging properly with the drive gear:**

With the pen extruding, gently push on the filament spool until you feel it being pulled through the drive gear on its own.

If the above does not work, reverse the filament from the pen. (See **Section 4**) Snip the ends, flat, avoiding any angles, set the pen to extrude, reinsert the filament, and try again. If the filament is too short to be reversed from the back of the pen, move to 3B.

**3B.   The filament is too short to be removed from the pen:**
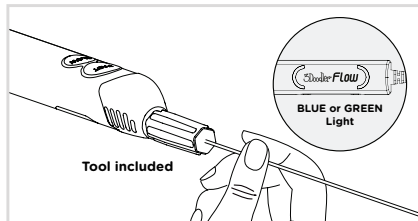
While the pen is on and the nozzle is hot, unscrew the nozzle using the back end of the included tool.
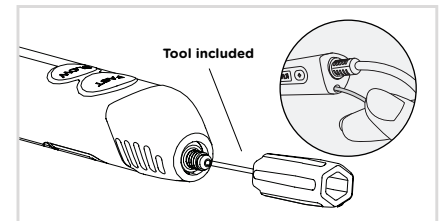
Double click either speed button to set the pen into reverse. Insert the tool through the front end of the pen and gently push any excess filament through the back of the pen

4.
The filament is leaking from around the nozzle

The nozzle may loosen with continued usage (or in transit). While the pen is hot (**BLUE** or **GREEN** LED lights are solid), gently turn the nozzle clockwise to tighten it using the included tool. Stop tightening once you first feel resistance so as to avoid over-tightening the nozzle and breaking it.
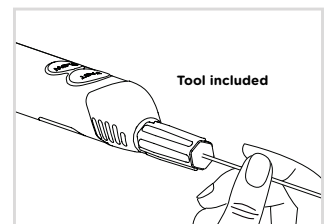

5.
The filament won't stop extruding

5A. Click either speed button once.

5B. If the pen keeps extruding, disconnect it from the power supply and then plug it in and try again.

6.

## I reversed the filament but can't get it out

It is possible that the filament is either too short to reverse all the way out of your pen, or that the filament has moved past the pen's drive gear system.

You can check for these issues by looking through the maintenance cover.

Filament reversed, but is too short to take out and is no longer in contact with the drive gear.
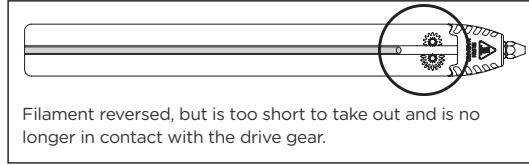
For both of these issues, you can try the following options:

6A. While the pen is ON and extruding, insert a new spool or use the included tool to push the remaining filament through **the nozzle tip.**

Filament is beyond drive gear.
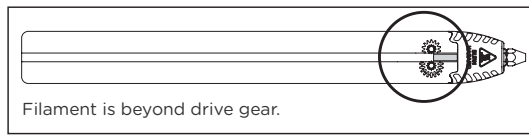
6B. While using the reverse feature, remove the nozzle and use the unblocking tool to push the filament out the back of the pen. (See **Section 3, Step 3B**)
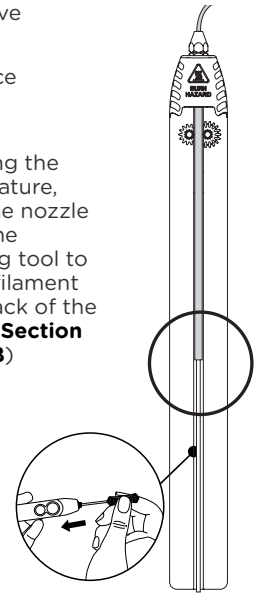
7.

My pen won't heat up (LED light stays red)

It takes around 60-90 seconds for your pen to heat up. If, after that time, the pen still does not heat up and the LED light remains RED, turn the pen OFF and back ON and try again. If that still does not work, please contact us at **help@the3Doodler.com** and we will assist further.

8.

My pen resets every time I try to use it.

Check your power source. This pen won't work with smart adapters. (Adapters that can handle multiple wattages) including USB-C ports on computers.

SECTION 4: TIPS AND BEST PRACTICES

Pay attention to filament types and settings

- For optimal Doodling, we suggest using the correct temperature settings for your plastic.
- Double check which type of filament you are using before you set your pen to the correct temperature setting (PLA or ABS). If your spools get mixed up, here is a handy table for sorting and identifying what you're working with.
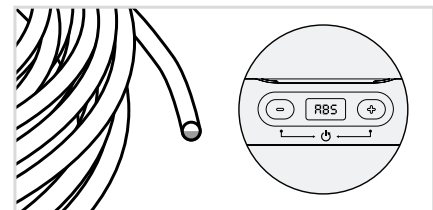- For more detailed information on filament types, visit our FAQ: **learn.the3Doodler.com/faqs/**.
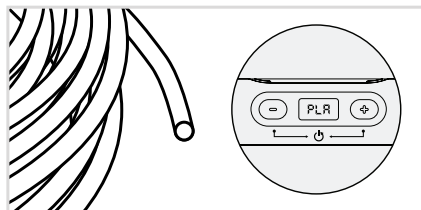
PLA:

Temp: PLA Temp
LED Light: GREEN
Feature: Glossy filament sticks to fabric, windows, metal and other hard surfaces.
How to tell: Very rigid, no white semi-circle ends.

ABS:

Temp: ABS Temp
LED Light: BLUE
**Feature:** Extruded filament has a matte finish. Great for drawing in the air.
How to tell: Filament has white semi-circle ends.

Switching between filament types

- If you're going from ABS to PLA, after clearing as much of the ABS as you can, insert a spool of PLA and begin extruding while still on the ABS setting. As soon as you see your new material extruding out, set the temperature to the proper PLA setting.

Do not forget to snip your filament ends

- After removing a spool from the 3Doodler Flow, cut and discard any partially melted material at the end of the spool. This will reduce blockages or clogging issues. Make sure your cut is flat and not angled to reduce filament from overlapping in the feed tube.

Snipped Ends **VS** Unsnipped Ends
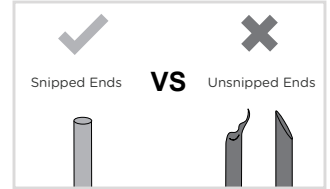
Reverse and remove filament correctly

- **DO NOT** pull filament from the back of the 3Doodler Flow other than as directed.
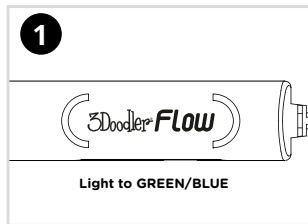
1 Light to GREEN/BLUE

Make sure the pen is heated up and ready to extrude.

2 x2 Flashing GREEN/BLUE
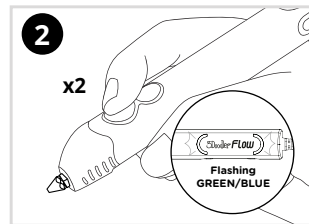
Double click either speed button. The back LED light will flash to signal filament is reversing.
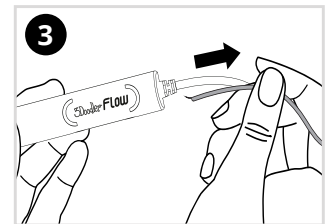
3

Once the filament stops reversing, it is safe to remove it from the pen by gently pulling on the back of the spool.

TAKE A BREAK:

Give your 3Doodler Flow a rest after every 2 hours of continuous doodling. 30 minutes of down time should be plenty.

Treat your nozzle right

- If you ever remove your nozzle, ONLY remove the nozzle when your pen is heated and a GREEN/BLUE light is showing. **DO NOT** remove it when your 3Doodler Flow is cold.

- If you ever need to tighten your nozzle, **DO NOT** force the nozzle or overtighten it, as you could break the nozzle and permanently damage your 3Doodler Flow.

GREEN/BLUE Light
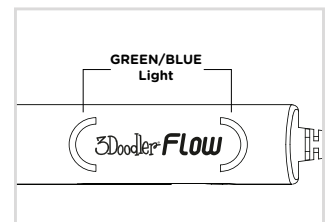
Specifications are subject to change and improvement without notice.