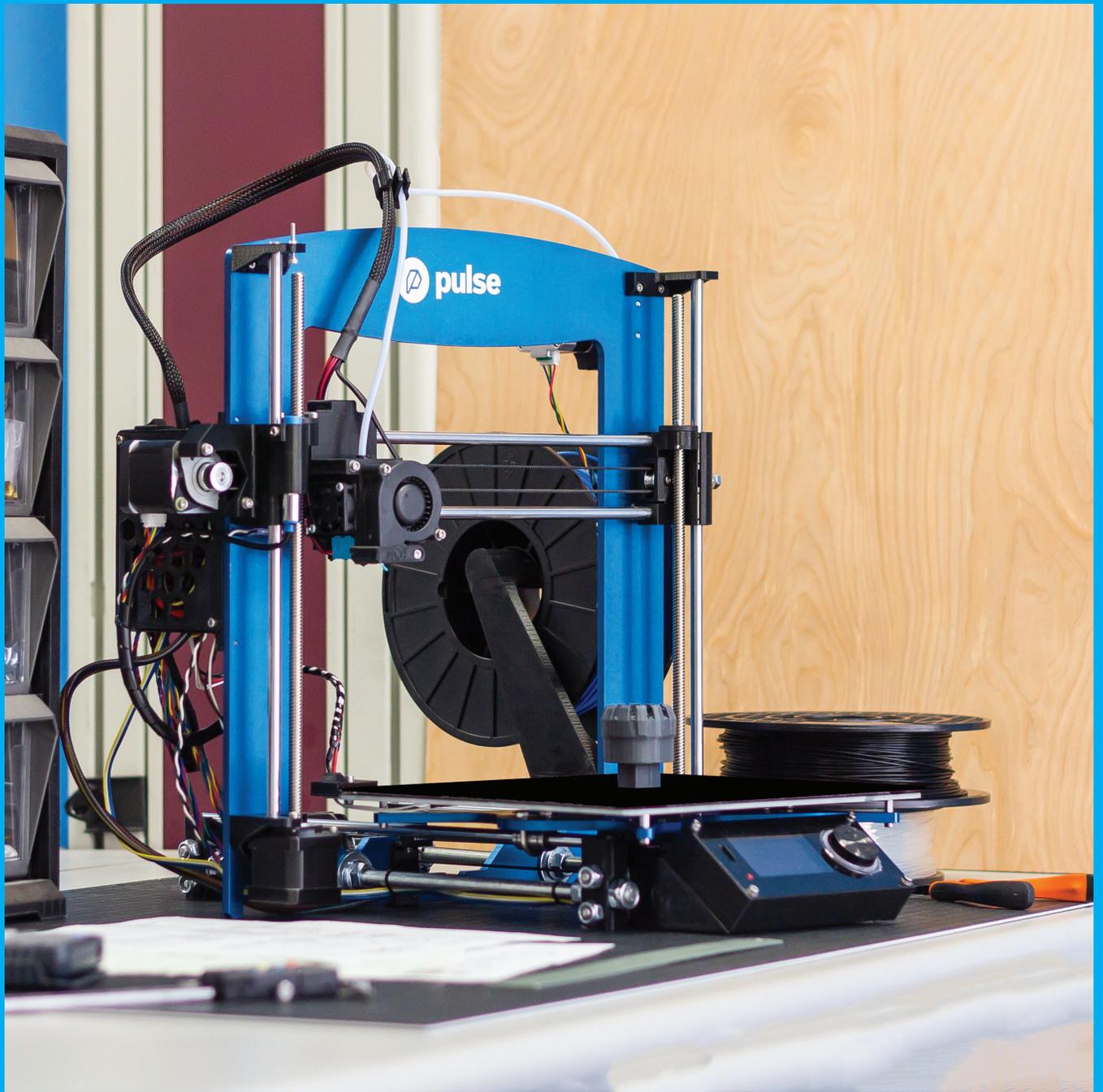




pulse

**GETTING STARTED
GUIDE**





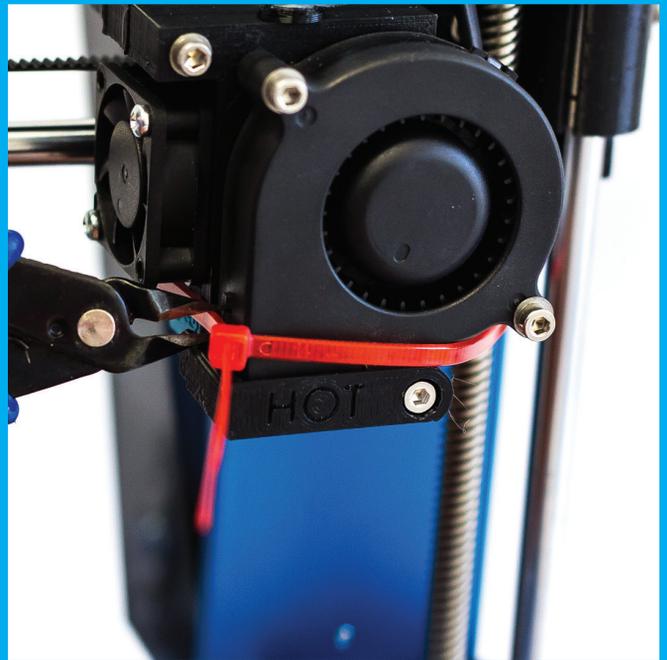
WELCOME TO THE



FAMILY

matterhackers.com/pulse

Getting Started Guide V#122



STEP 1

UNBOXING

| Remove printer and accessories from the packaging.

STEP 2

REMOVE **RED** ZIP TIES

| Cut and remove **RED** zip ties.

| **DO NOT** cut or remove any **BLACK** zip ties. They are used for wire management, and are meant to remain in place.

STEP 3 (OPTIONAL UPGRADE - SKIP TO STEP 4)

VIKI2 LCD SCREEN INSTALLATION

| Make sure the Pulse is powered off before proceeding.

PLUG IN 12-PIN CONNECTOR

| The black wire goes to the pin marked "GND". (A)

| The red wire goes to the pin marked "+Vin". (A)

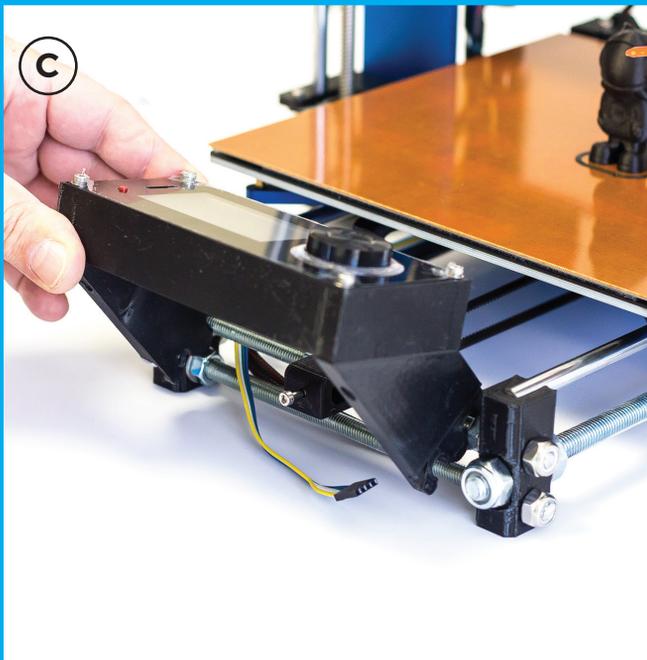
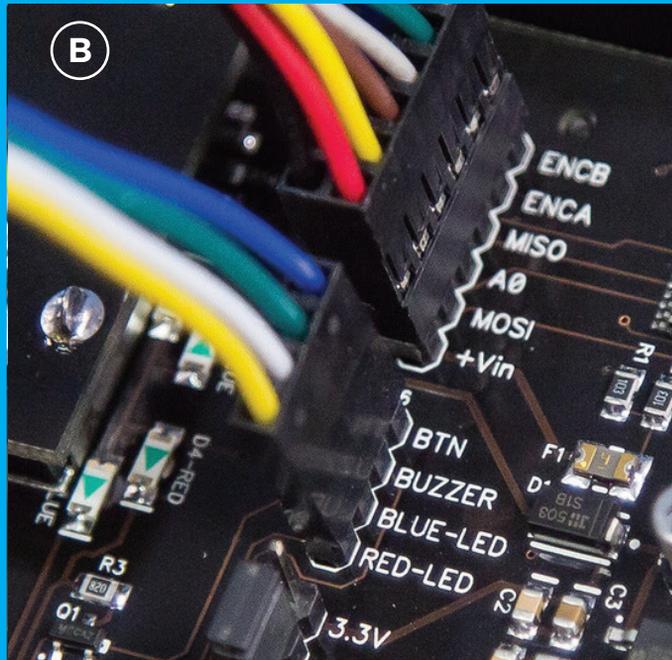
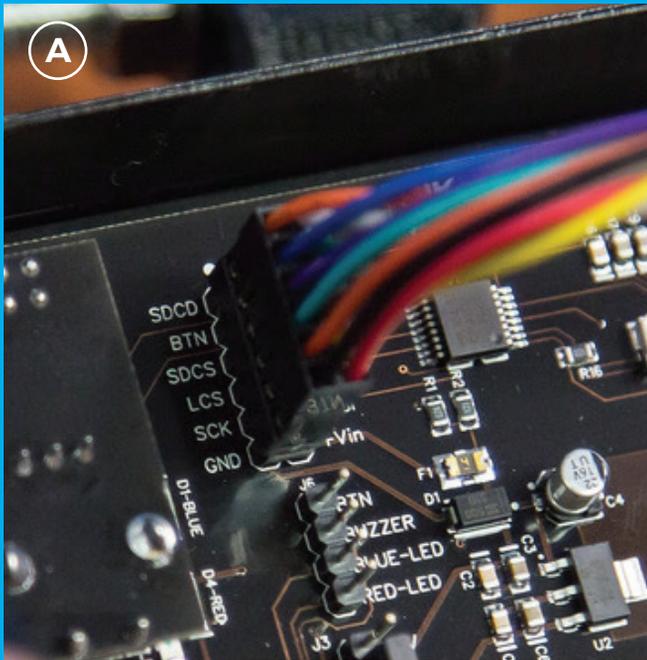
PLUG IN 4-PIN CONNECTOR

| Blue wire goes to pin marked "BTN". (B)

SNAP VIKI INTO PLACE

| Snap into place as shown. (C)

| Turn the Pulse on and check that the screen powers on and displays the printer status.



STEP 4

CONNECT POWER SUPPLY

Connect the power supply to the Pulse. (A)

Turn the power switch on.

STEP 5

PLUG USB CABLE INTO PULSE

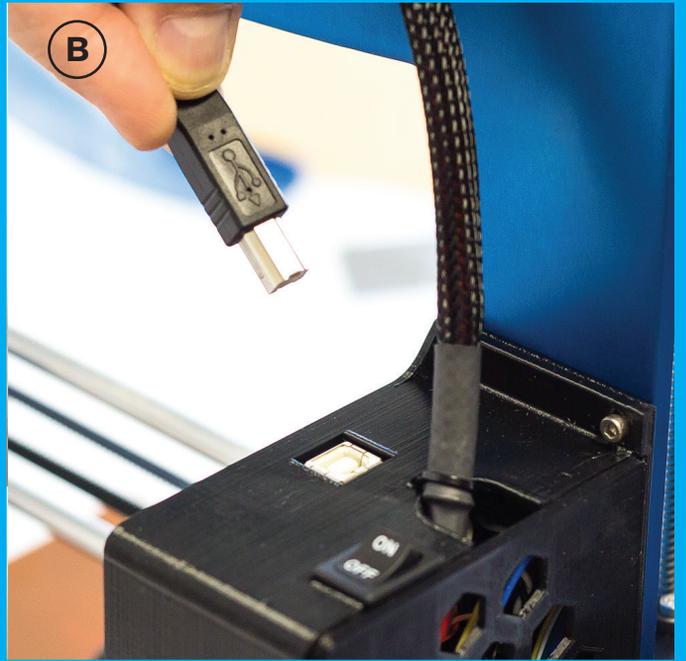
Locate the USB input on the back of your Pulse 3D printer and plug USB cable in. (B)

Don't plug the USB cable into your computer yet. Doing so may cause difficulties with the initial connection setup.

STEP 6

CLEAR THE BED

Every Pulse printer is tested before it is shipped out. Remove the test print from the bed. (C)



STEP 7

INSTALL MATTERCONTROL

| Download the latest version of MatterControl from matterhackers.com/pulse

STEP 8

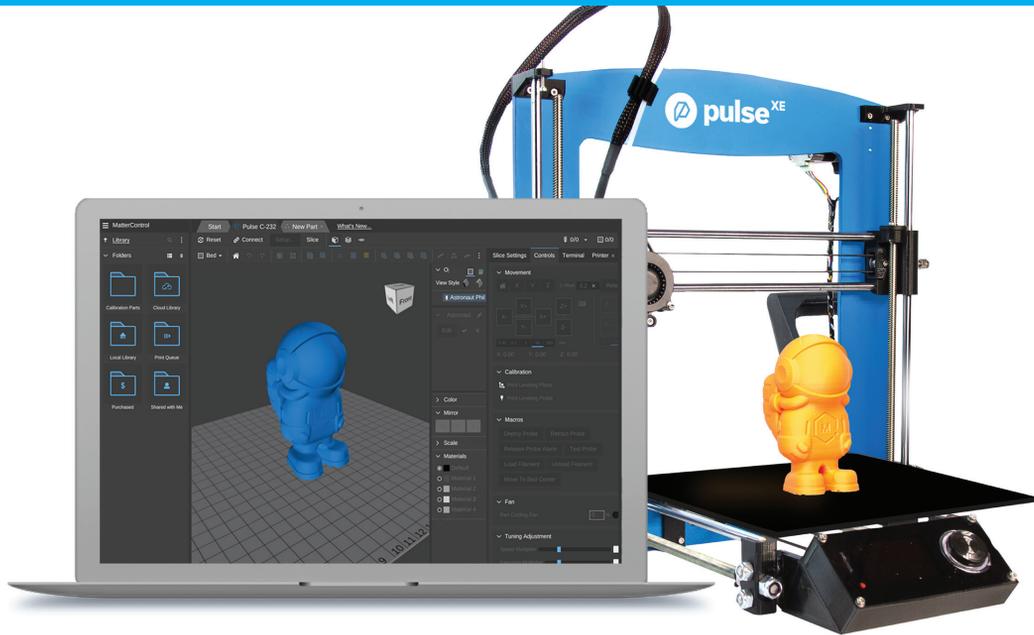
SETUP WIZARD

| Open MatterControl. You should see the Setup Wizard window.

| If you purchased your Pulse using a MatterHackers account, sign into MatterControl using this account - your Pulse will already be loaded into your MatterControl profile.

| If not automatically prompted to add a printer, click the + button next to the printer list.

| Locate the model number on the sticker on the back of the blue aluminum frame. Choose the model Pulse you have during setup.



Setup Wizard

Sign in to access your cloud printer profiles.

Once signed in you will be able to access:

- **Cloud Library**
Save your designs to the cloud and access them from anywhere in the world. You can also share them any time with with anyone you want.
- **Cloud Printer Profiles**
Create your machine settings once, and have them available anywhere you want to print. All your changes appear on all your devices.
- **Remote Monitoring**
Check on your prints from anywhere. With cloud monitoring, you have access to your printer no matter where you go.

Don't remind me again

Create Account

Sign In

Skip

MODEL
X-XXX



SERIAL
XXX-XXXXXXXX-XXXXXXXXXX

STEP 9

DETECT PRINTER

Once the correct model has been selected, the Setup Wizard Detect Screen should be visible. (A)

Ensure that your Pulse is powered on and the USB cable is NOT connected to your computer. Select "Continue".

If you have your USB cable connected during this step, MatterControl will not be able to auto-detect the printer and you will need to go through the process again.

STEP 10

CONNECT PRINTER

Connect the USB cable to computer and click "Connect". (B)

You should get confirmation of connection, and MatterControl will prompt you to begin the initial calibration. Click "Next" to go through the Probe Calibration wizard. (C)

A

Setup Wizard

MatterControl will now attempt to auto-detect printer.
1.) Disconnect printer (if currently connected).
2.) Press 'Continue'.

You can also:
[Manually Configure Connection](#)
or
[Skip Connection Setup](#)

Continue

Cancel

Setup Wizard

B

MatterControl will now attempt to auto-detect printer.
1.) Connect printer and power on.

[Manual Configuration](#)

Connect

Cancel

Initial Printer Setup

C

Congratulations on connecting to your printer. Before starting your first print we need to run a simple calibration procedure.

The next few screens will walk your through calibrating your printer.

Next

Cancel

Probe Calibration Overview

Welcome to the probe calibration wizard. Here is a quick overview on what we are going to do.

- Home the printer
- Probe the bed at the center
- Manually measure the extruder at the center

We should be done in less than five minutes.

Click 'Next' to continue.

Next

Cancel

Step 3 of 3: Position 1 - High Precision

We will now finalize our measurement of the extruder height at this position.



- Press [Z-] until there is resistance to moving the paper
- Press [Z+] once to release the paper

Finally click 'Next' to continue.

Next

Cancel

A

MatterHackers: MatterControl - Print Leveling Wizard

Print Leveling Overview

Welcome to the print leveling wizard. Here is a quick overview on what we are going to do.

- Select the material you are printing
- Home the printer
- Heat the bed
- Sample the bed at 9 points
- Turn auto leveling on

We should be done in approximately 5 minutes.

Click 'Next' to continue.

Next

Cancel

B

MatterHackers: MatterControl - Print Leveling Wizard

Select Material

Please select the material you will be printing with, so we can accurately calibrate the printer.

Material

Pro Series PLA

Next

Cancel

C

MatterHackers: MatterControl - Print Leveling Wizard

Waiting For Printer To Heat

Waiting for the bed to heat to 55. This will improve the accuracy of print leveling.

Bed Temperature:

46 / 55

Next

Cancel

STEP 11

PROBE CALIBRATION

Follow the steps to calibrate your bed leveling probe - MatterControl will guide you through the process.

This step sets the distance of the probe from the bed and is only performed once.

You will need a piece of paper to complete this step. Place the paper between the nozzle and the bed. Use the controls to move the nozzle up and down until it gently grabs the paper.

STEP 12

BED LEVELING

MatterControl will guide you through the process of Automatically leveling the bed. (A)

Select the material you will be printing with first. We recommend using the PRO Series Filament that came with your Pulse (you do not need material loaded yet). (B)

The bed will begin heating. For best calibration results, wait until the bed has reached the target temperature before proceeding. (C)

You do not need to probe the bed before every print. MatterControl stores the probing data and applies it to every print until you change it. Because the bed expands with heat, we recommend probing the bed any time you change the bed temperature by more than 10C.

STEP 14

LOADING FILAMENT

At the top right of the screen you will see the Current Extruder Temperature status - select that menu.(A)

Under 'Filament' select 'Load'. (B)

Hang the spool of filament from the Spool Holder on the back right side of the machine. Be sure to have the spool oriented so that the filament flows into the extruder.

MatterControl will guide you through the loading process. Follow the steps on the screen. (C)

For more information on Materials and Bed Surface compatibility please visit the Guides section on www.matterhackers.com/pulse

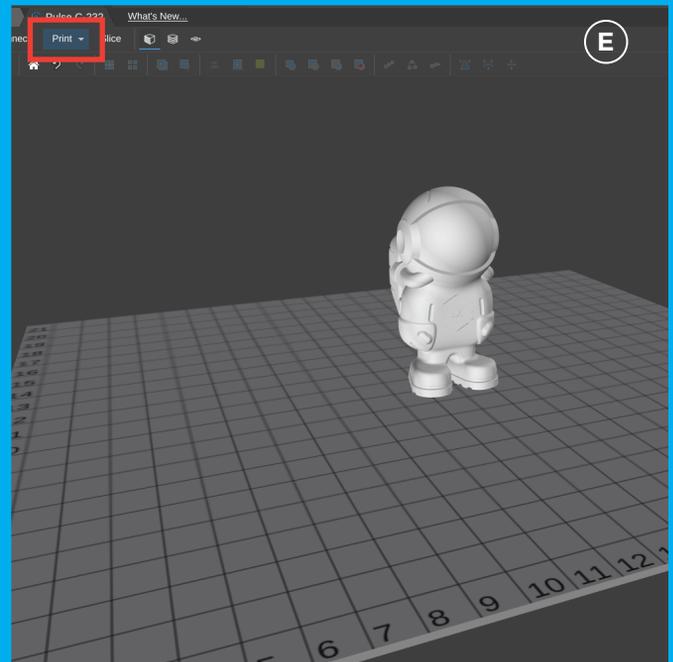
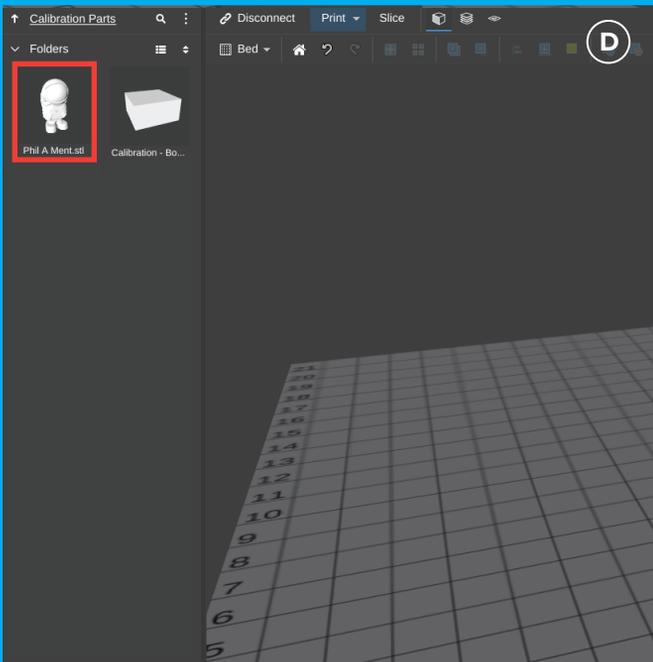
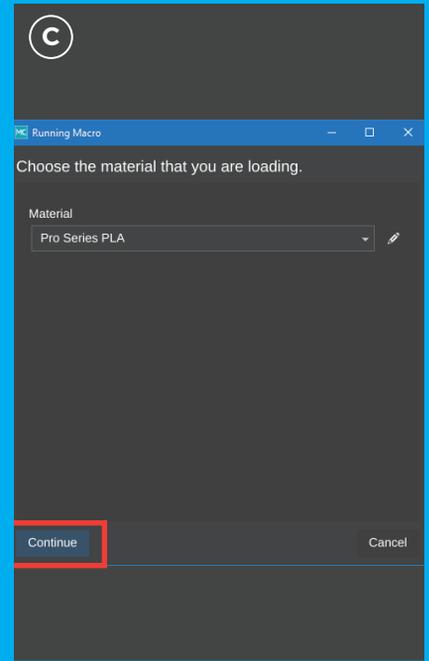
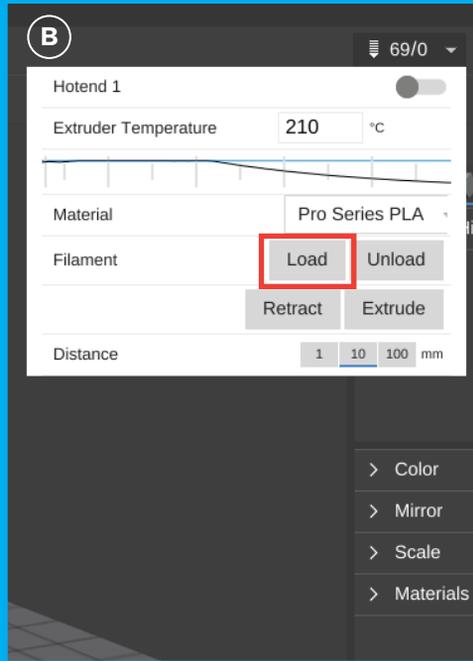
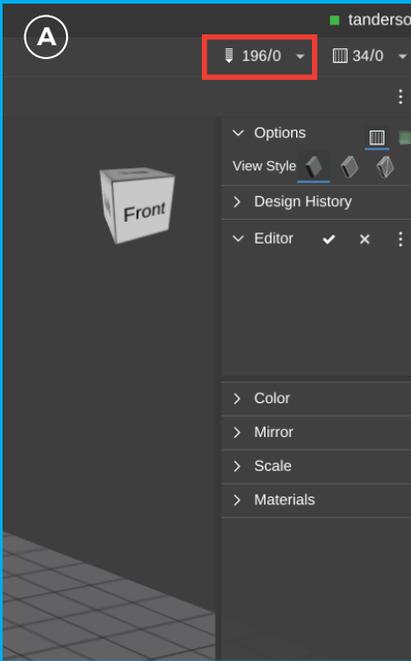
STEP 15

START YOUR FIRST PRINT

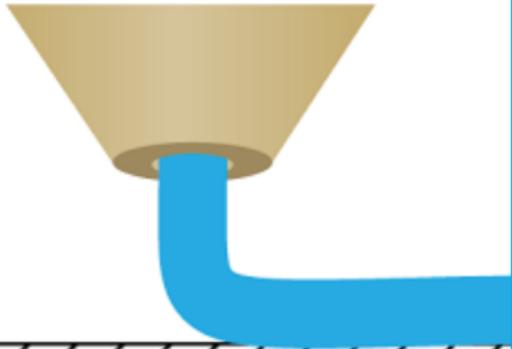
For specific guides for succeeding with a bunch of different materials - visit the Pulse User Guide at matterhackers.com/pulse

Locate the '3D Phil' design under the folders - Library - Calibration Parts. Select the Design and drag it onto the bed (D)

Select 'Print' then 'Start Print.' (E)



TOO HIGH



IDEAL



TOO LOW



STEP 16

TUNING YOUR FIRST LAYER

You should not need this - but if your part is not sticking to the build plate or is too difficult to remove, you can adjust the distance from the nozzle to the bed by accessing Baby Stepping in 'Movement Controls' under the Controls Tab.

Once the print has started, simply click Z+ to move the nozzle higher off the bed, or Z- to move it closer to the bed. (A)

Notice the 'Offset' next to the Home buttons. This indicates how much you've moved each axis since the print started (X, Y, Z). (B)

Nozzle too far from the bed: The filament is just laying on top of the bed & with no real compression. This leaves a very small contact point with the bed and will likely result in the part not sticking to the bed. (c)

Ideal first layer for most materials. (D)

Nozzle too close to the bed: You will likely have extrusion issues because there's nowhere for your filament to go. Pressure will build up in the nozzle and could cause filament grinding, heat creep, or other extrusion related issues.(E)



BECOME AN EXPERT

To learn more about your Pulse 3D printer visit
www.matterhackers.com/pulse

- Getting Started Guide
- How to succeed with a bunch of different materials
- Pulse User Manual
- Maintenance Instructions

GET INSPIRED



www.matterhsckers.com/explore





RELOAD FILAMENT

www.matterhackers.com/store

|MH| **BUILD**

MH Build Series 3D Printing Filament is designed and priced for every maker. This affordable series comes in PLA, ABS, and PETG filament.

PRO | Series

MatterHackers PRO Series Filaments are engineered to highlight the strengths of each type of 3D printer filament. Manufactured to the tightest tolerances on the market and made in the USA, PRO Series Filaments include PLA, ABS, PETG, Nylon, Flex, and Ryno.

NYLON^x

NylonX is an engineering grade nylon filament which is blended with chopped carbon fibers (approximately 20% by weight), creating a high-strength filament capable of printing tough, functional parts.



PETG

PROFESSIONAL GRADE

100% PETG

1.75mm

1kg

MH BUILD

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