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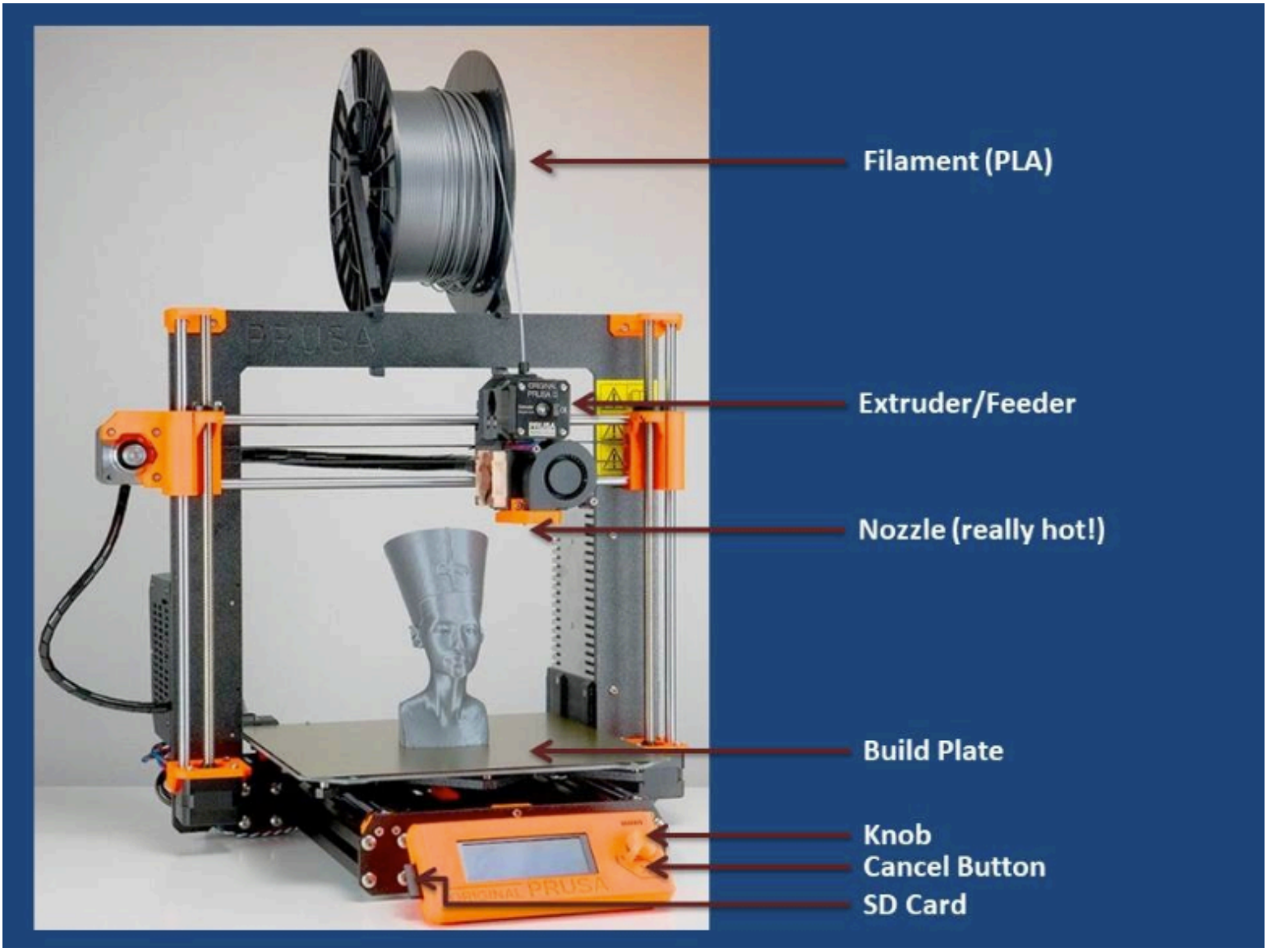
How to use the 3D Printer



Caution:

The extruder heats up to 215℃, and the build plate heats up to 60℃, so it is important to keep your hands clear from both of them.

Step 1:

Begin by cleaning the plate. Grab a few pieces of kleenex from the provided boxe, then spray the kleenex with the provided cleaner. Wipe down the plate. You don't need to dry it off as when the plate heats up it dries itself. You shouldn't need to clean the plate between back-to-back jobs.

Step 2:

Using the provided pliers, cut the end of the filament at a sharp, 45° angle. Take the end of the filament out of the hole in the wheel, and insert it into the hole in the top of the extruder.

Step 3:

When you put the plastic into the hole, you should hear a click coming from the printer. If not, take the plastic out of the hole and put it in again until you hear the click. Once you've heard the click, look at the info screen. The screen should show a few different three-letter options. These are different types of filament that the machine can use, but we only use PLA. Use the knob beside the screen to select PLA by moving the selection icon (looks like this: >) to PLA, then press the knob to select it. The printer will begin to heat up to the ideal temperature for this kind of plastic.

Step 4:

Once the printer has reached the ideal temperature , it will make a loud beep. Grab the plastic, press the knob, and push down on the plastic. Don't push too hard on the plastic, just apply a small amount of pressure. If the plastic has entered the extruder properly, you will feel a slight vibration in the plastic, and you will feel it moving down into the extruder. When you feel this you can let go of the plastic. The extruder will rise up and push out a bit of plastic. The information screen will soon read: "Printer extruding filament and with correct colour?". If the printer is extruding the correct colour, then you can select yes and move onto the next step. If it isn't, then select no and it will continue to push out any remaining old filament until your selected colour appears.

Step 5:

Remove all plastic from the plate by using a medium to long object. A pen or a pencil will work, as long as your hand isn't getting close to the extruder.

Step 6:

You are now ready to start your print. Make sure that the SD card containing your sliced object is in the SD slot. Press the knob to bring up the printer options. Turn the knob to scroll down the list of options until you get to "Print from SD". Press the knob to bring up the prints that are on the SD card. Scroll through the list of prints until you find the name of your print, then press the knob and the printer will start the project.

Step 7:

Wait for your object to be printed and monitor its progress. If at any point the print job begins to look deformed, then press the cancel button and safely clear the failed job from the plate. See Prusa's troubleshooting page for possible reasons for the malfunction.

Step 8:

Once your object(s) has finished printing, take the plastic out of the extruder and put it back in the wheel. To do that, press the knob to bring up the options menu. Scroll through the options until you get to “Unload Filament”, then press the knob. When you select “Unload Filament”, you will see the options from earlier when you had to select PLA. Select PLA once again. If you do it fast enough you won’t have to wait for the extruder to reheat, and then you just have to pull the plastic out of the extruder and put it back in the wheel. If you take too long you will have to wait for the extruder to reheat. When it’s reheated, you will hear a loud beep, then you press the knob and pull the plastic out of the extruder, and secure it through one of the holes on the side of the filament wheel.

Step 9:

If you printed an object that sticks up, like a character or one of the larger example prints we have, then you can just grab your object right off of the plate. If your object is relatively flat, like a nametag or keychain, then you will need to take the plate off of the printer and remove it. Before taking the plate off of the printer, wait for it to cool off, then remove it. To remove it, put your thumbs in the little spots sticking out from underneath the plate with a fingerprint on it, and put your index finger under the corners of the plate right next to wear your thumbs will go, then lift. The plate is magnetic so you will feel a little resistance. When the plate is in your hands, very carefully, slightly flex the plate up and down, and that will cause the print to come off of the plate.

Step 10:

Remove all plastic from the plate, including the border that was around your object and the little strip of plastic the printer puts on the plate right before printing your object.

Step 11:

Lastly, you have to put the plate back onto the printer. To do it properly, the edges of the indentation at the top of the plate need to match up with the two screws at the top of the plate. Match up the indentation with the screws, make sure that your fingers won’t get pinched and be mindful of the strength of the magnet as you slowly set the plate down on the printer. If the screws are lined up properly with the plate, then the plate with fit perfectly onto the printer, and the part of the printer the plate sits on should not be visible.