



Printing in Multiple Colors

This guide will show users how they can print one object using up to 4 different filaments!

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Step 1 — Get a file to print



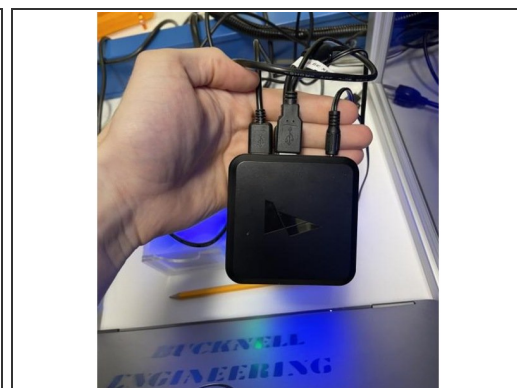
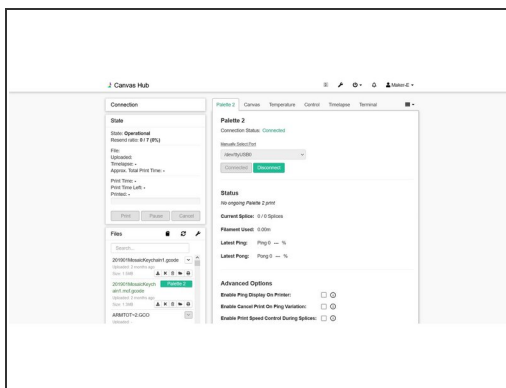
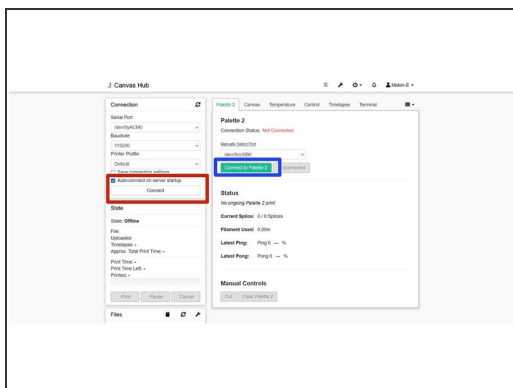
- This guide will be using the [Mosaic Calibration Keychain](#) to show how to print in 3d
- Multicolored prints will come in multiple stl files, one for each color. Although you will be able to further edit the color of the parts at a later step in the guide

Step 2 — Turn on the Pallet S2



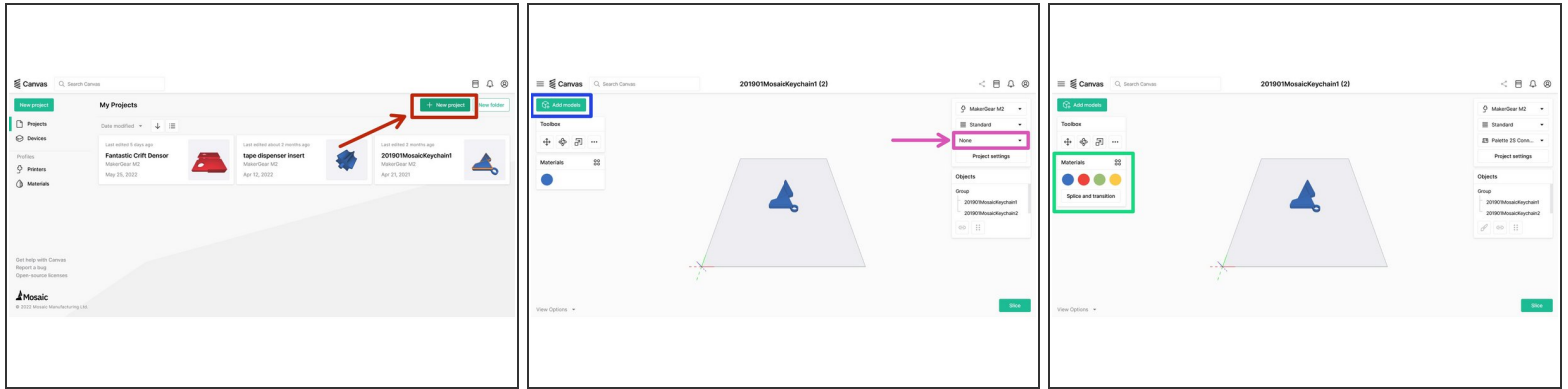
- Press the switch on the side of the Pallet, it should immediately turn on

Step 3 — Connect The Canvas Hub to the Printer and Pallet S2



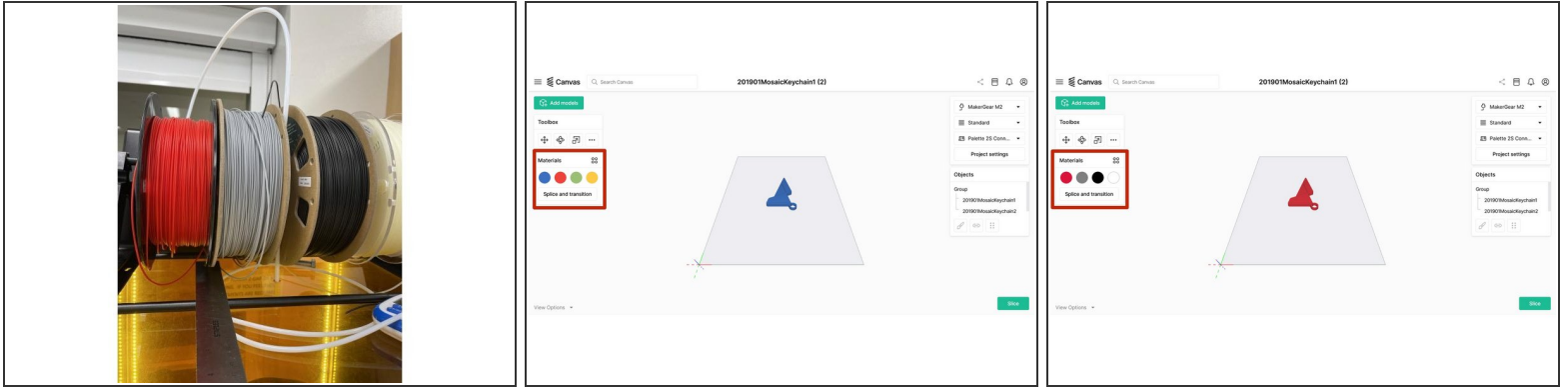
- Go to the [canvas hub](#) and login with the credentials on the front of the Pallet S2
- Make sure that both the printer and Pallet S2 are connected(should look like second image) If not then...
 - Connect the printer
 - Connect the Pallet S2
- ① Sometimes the canvas hub won't work, and you'll need to unplug it and plug it back in. Its located on top of the printer's protalbox

Step 4 — Upload to Canvas



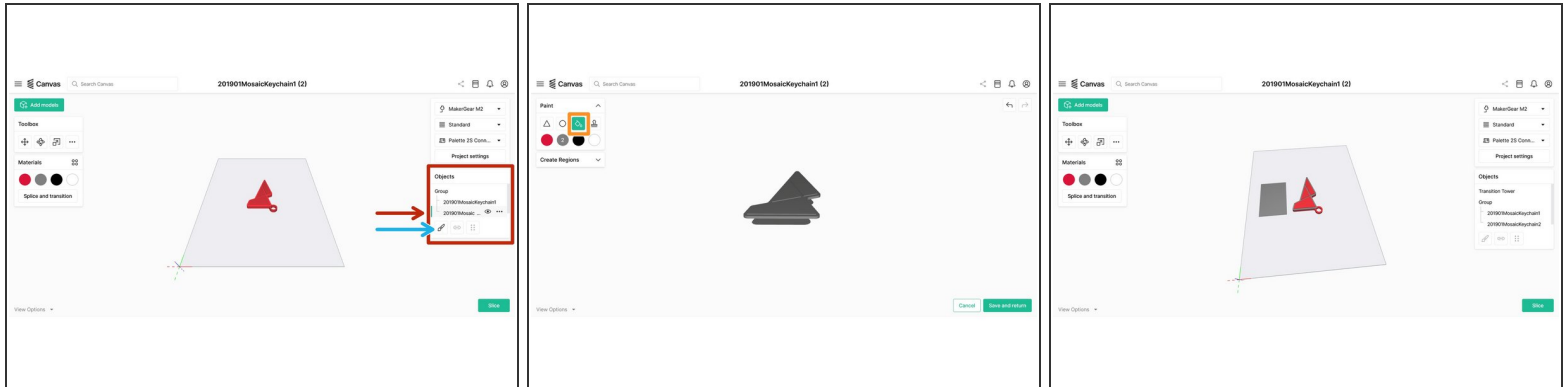
- Go to: <https://www.canvas3d.io/>
- Login with the credentials on the front of the Pallete S2
- Create a New Project by clicking the button in the top left or top right.
- Add your files by dragging them onto the multi material side on the right side of the screen, or by clicking "Add models"
- Make sure to select the Pallet S2 as the accessory
- You should have 4 colors shown on the left side

Step 5 — Assign colors(optional)



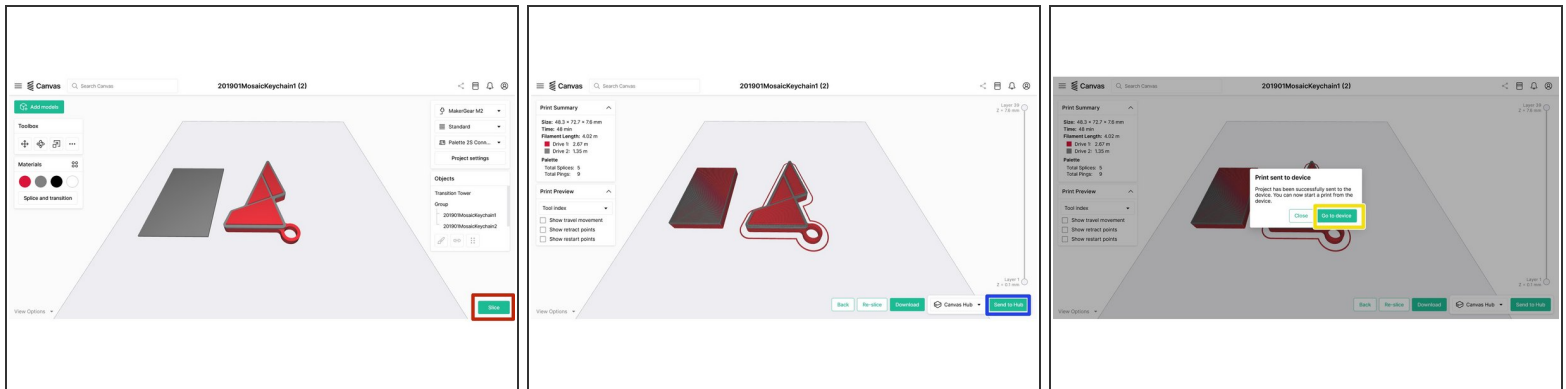
- Check what colors you have and note the order they are in in relation to the Pallet S2
- Now would be the time to change the colors if you want different colors.
- Edit the colors in the materials window to match the colors you have on the spool. There are a limited number of available colors, its fine if they don't match the actual filament color.
- ① This step is optional since as long as you know which colors correspond to which filaments you can just figure out what needs to go where. BUT its highly recommended so that you don't make any silly mistakes.

Step 6 — Using Canvas to assign colors



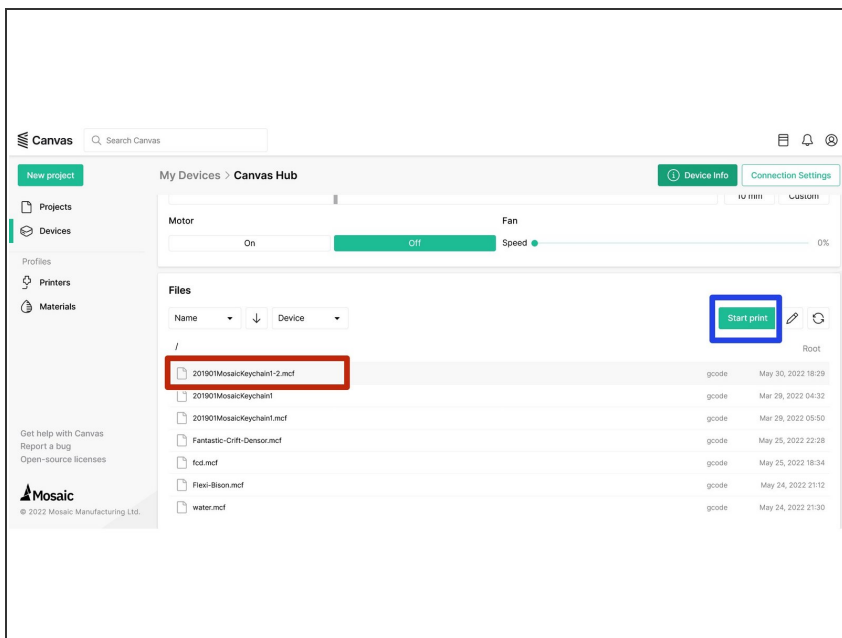
- In order to assign colors go to your objects window and select the part you want to color.
- And then press on the paintbrush
- Here you can paint or select regions of your file to be in different colors. For the this project, it was easiest to use the paint bucket tool.
- ⓘ There is a lot more you can do with canvas's color assignment, but that's outside the scope of this guide, Explore it!

Step 7 — Slice and Send Print to Hub



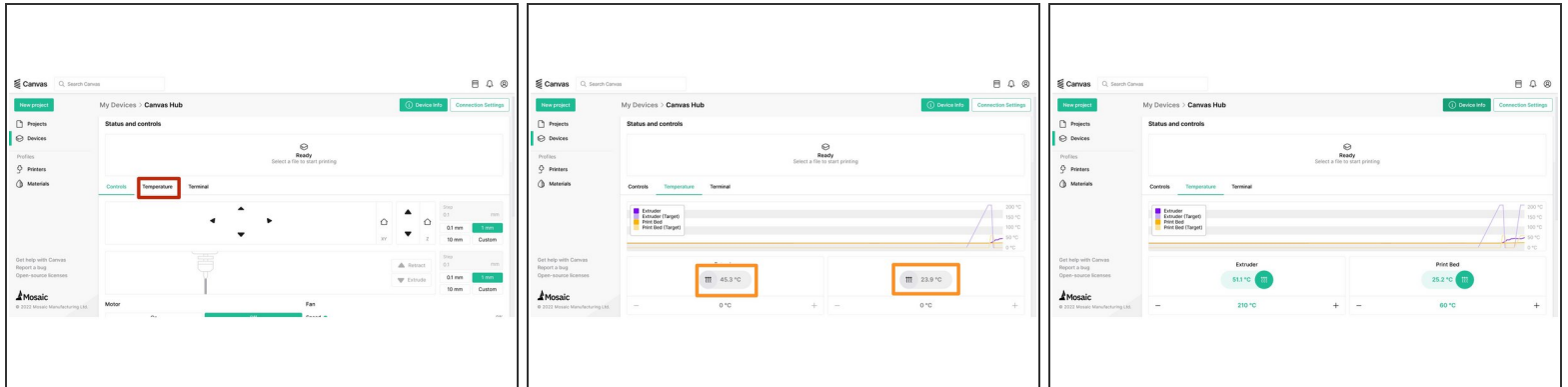
- Press slice in order to slice the print
- Once sliced you can check that everything is correct , if the Canvas Hub is connected then you can press "send to hub"
- Depending on the size of the file this can take a while wait for a bit and then click "Go to Device" on the popup
 - ① For particularly large file it might timeout on this page, it will tell you this, you can go back to the canvas homepage and then select the canvas hub device, it should eventually upload

Step 8 — Start Print



- Select your print
- Then press "start print"

Step 9 — Preheat Nozzle and Bed



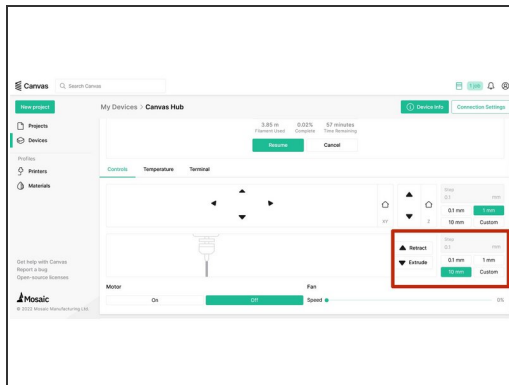
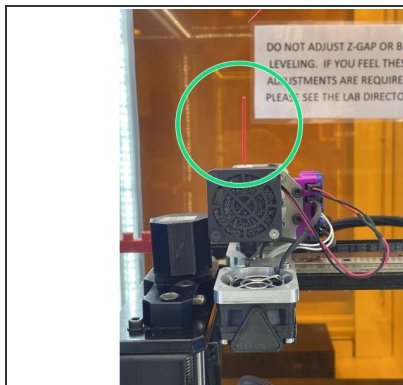
- Go to the temperature tab
- Turn on the nozzle and bed temperature

Step 10 — Clear and Enter Pallet S2 Input+Output



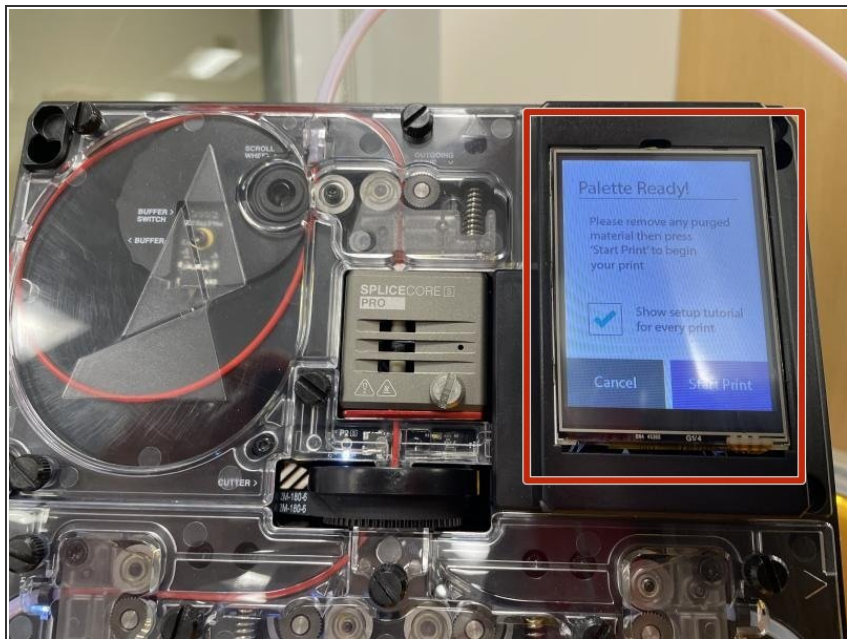
- I would recommend taking off the Pallet's cover, since it makes it easier to see whats going on.
- The Pallet's cover is held on with magnets, which makes this very easy.
- Follow the instructions on the Pallet's screen
- Load the filament into the little holes at the bottom(blue), until the wheels(yellow) grab them.
- Once all the filaments you are using are loaded, then the Pallet will start to splice the filament which will exit out the top(green)
- Wait until you get enough filament to load into the printer

Step 11 — Load Filament into Printer



- First unload any leftover filament
- Set the step size to 10mm.
 - While gently tugging on the filament in the printer press "retract" until you can pull the filament free from the printer
- Follow the instructions on the Pallet S2
- ❗ We currently don't have a clip for the tub on the printer end, so ignore that. The "smart load" feature should work well.
- ★ Make sure to put the cover back on the Pallet S2!

Step 12 — Start the Print



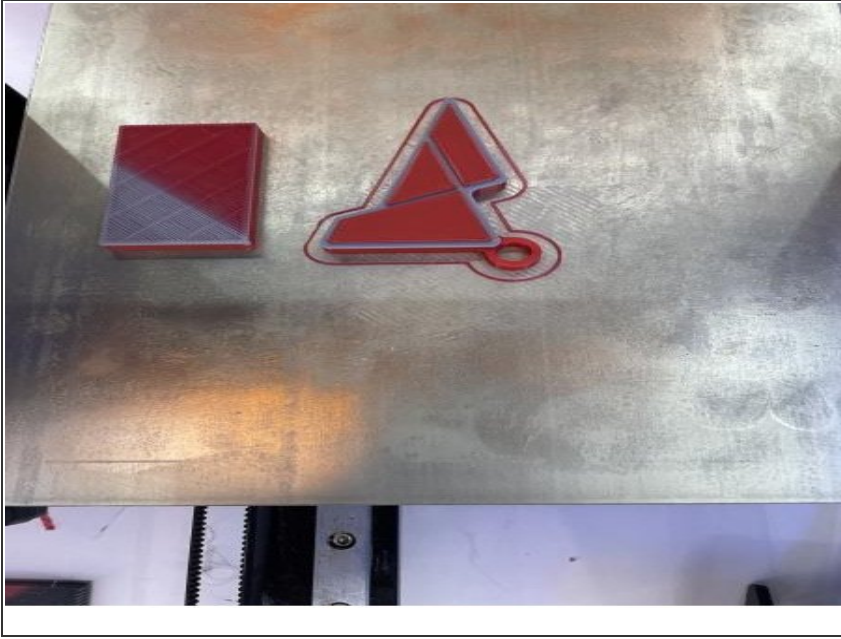
- On the Pallet S2 press "Start print"

Step 13 — (!)Make Sure the Filament Takes No Sharp Turns



- ⚠ Make sure that the filament doesn't take any sharp turns on its way to the nozzle.
- ⚠ The splicing makes the filament rather brittle where it was spliced which makes it easy for the filament to snap, if this happens then your print is ruined(in 99% of cases) so make sure that the filament takes relaxed curves to from the spool to the pallet to the nozzle!
- ⚠ Watch the print for the first few minutes to make sure it starts correctly.

Step 14 — Remove Print



- Remove your print and the transition tower from the bed