REPRAPGURU

Prusa i3 Configuration Manual

Basic skills required:

- A little better than basic computer skills

Tools/Supplies required:

- A computer running Windows XP or better

Now on to the fun! Let's get this printer setup!

Step 1: Download all required software:

Download the following software from the links provided:

The latest Arduino IDE (for the OS you have):
http://arduino.cc/en/Main/Software

Repetier Host (for the OS you have):
http://www.repetier.com/download/#w
(you can choose to donate to Repetier if you wish, if not, the link is just below the donate box)

All the files in this folder on Google Drive:
https://goo.gl/csU6RI

Step 2: Install all required software:

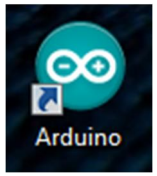
Install the Arduino IDE software.

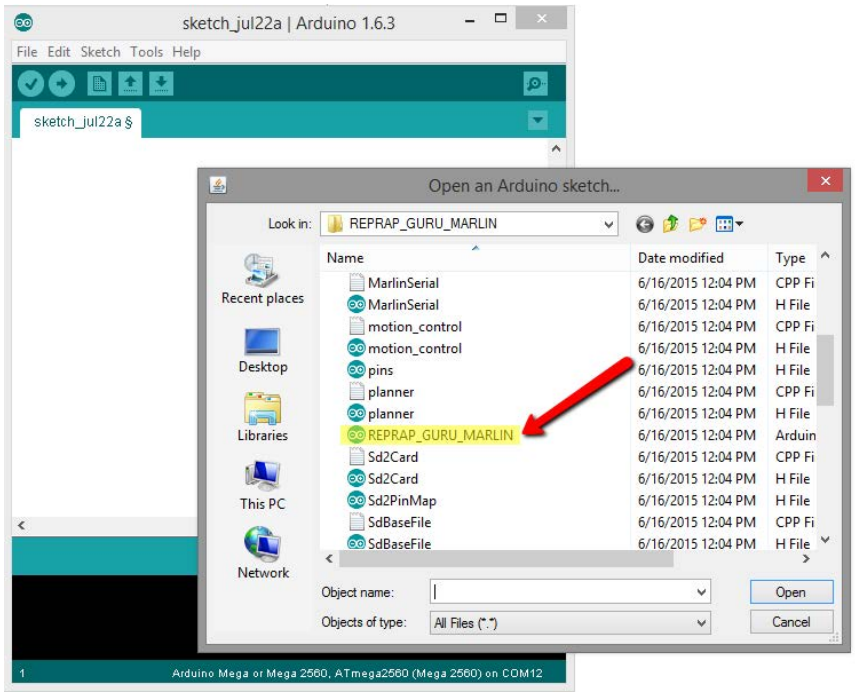
Install Repetier Host (don’t configure yet)

If any warnings come up, accept them, it’s safe, we swear!

Step 3: Open Arduino IDE

Launch the Arduino IDE software and open the .ino file





Step 4: Connect printer to PC

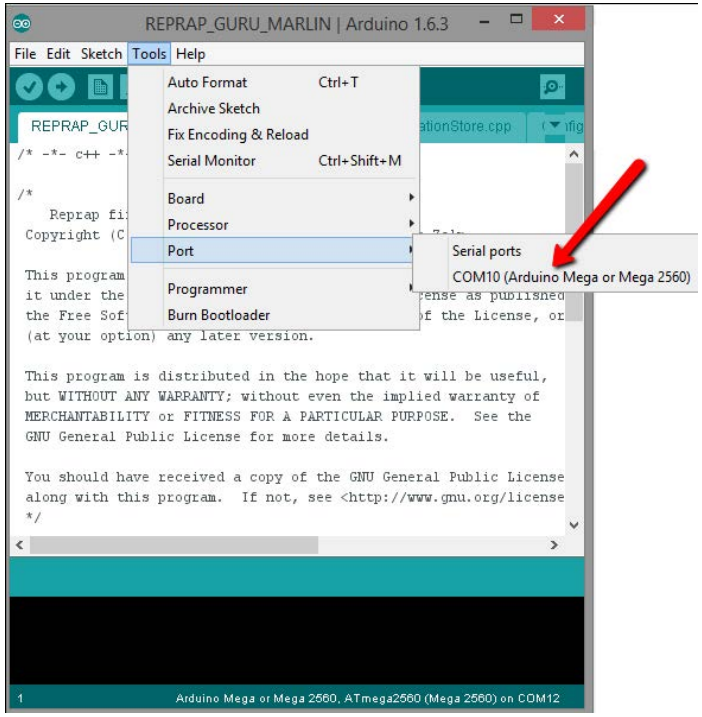
Your printer does not need to be plugged into the wall at this point.

Connect the USB cable to the port on the Arduino MEGA (the underside of the electronics) on the printer.

Your computer should recognize the board and install the drivers automatically. If your computer does not see the Arduino board, you may have some wiring wrong. In that case, un-plug it and check all of your wiring, especially the end stops.

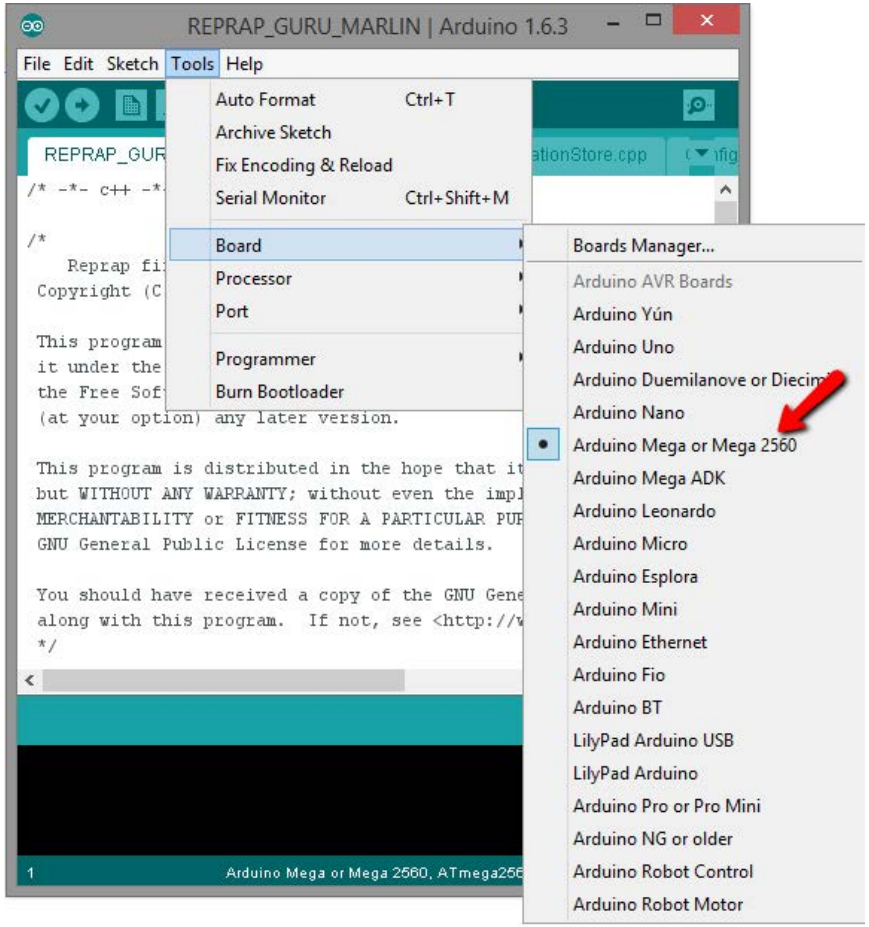
Step 5: Choose serial port in the Arduino IDE software

In the Arduino IDE software, open the Tools menu then Serial Port, choose the highest number COM port you see (usually the Arduino board)



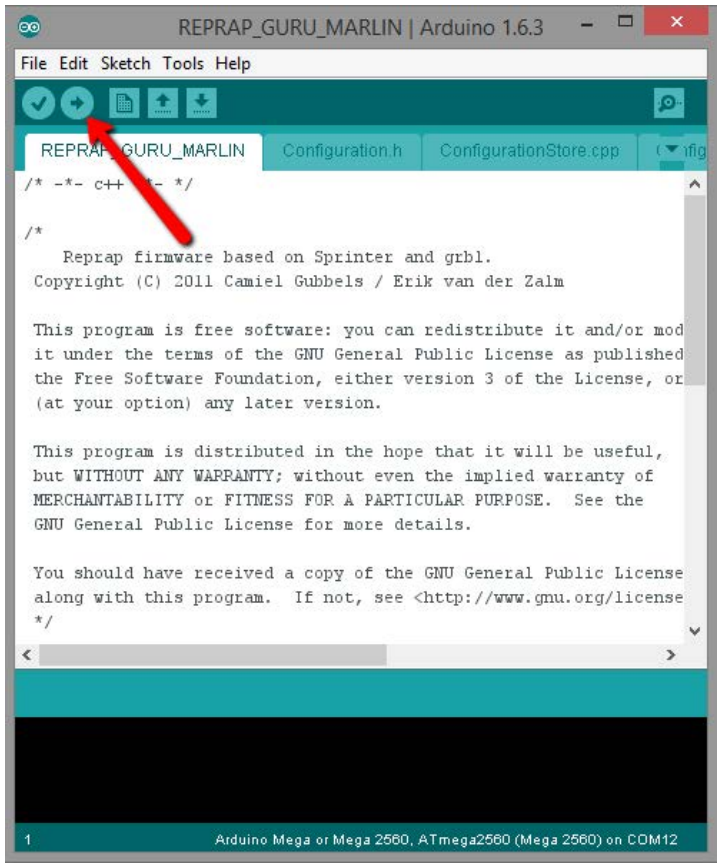
Step 6: Choose the type of board in the Arduino IDE

In the Arduino IDE software, open the Tools menu then Board; choose the Arduino Mega 2560 or ADK



Step 7: Upload the Arduino Sketch to the board

In the Arduino IDE software, click the upload button (the right facing arrow)

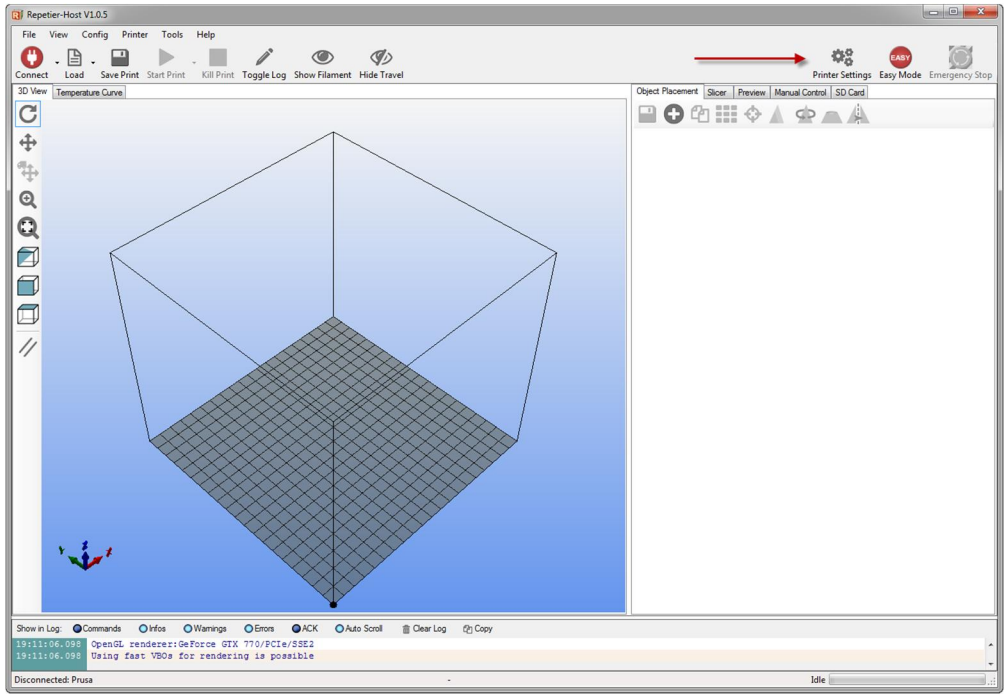


When the sketch is done uploading, close the IDE application.

Step 8: Configure Printer Settings in Repetier Host

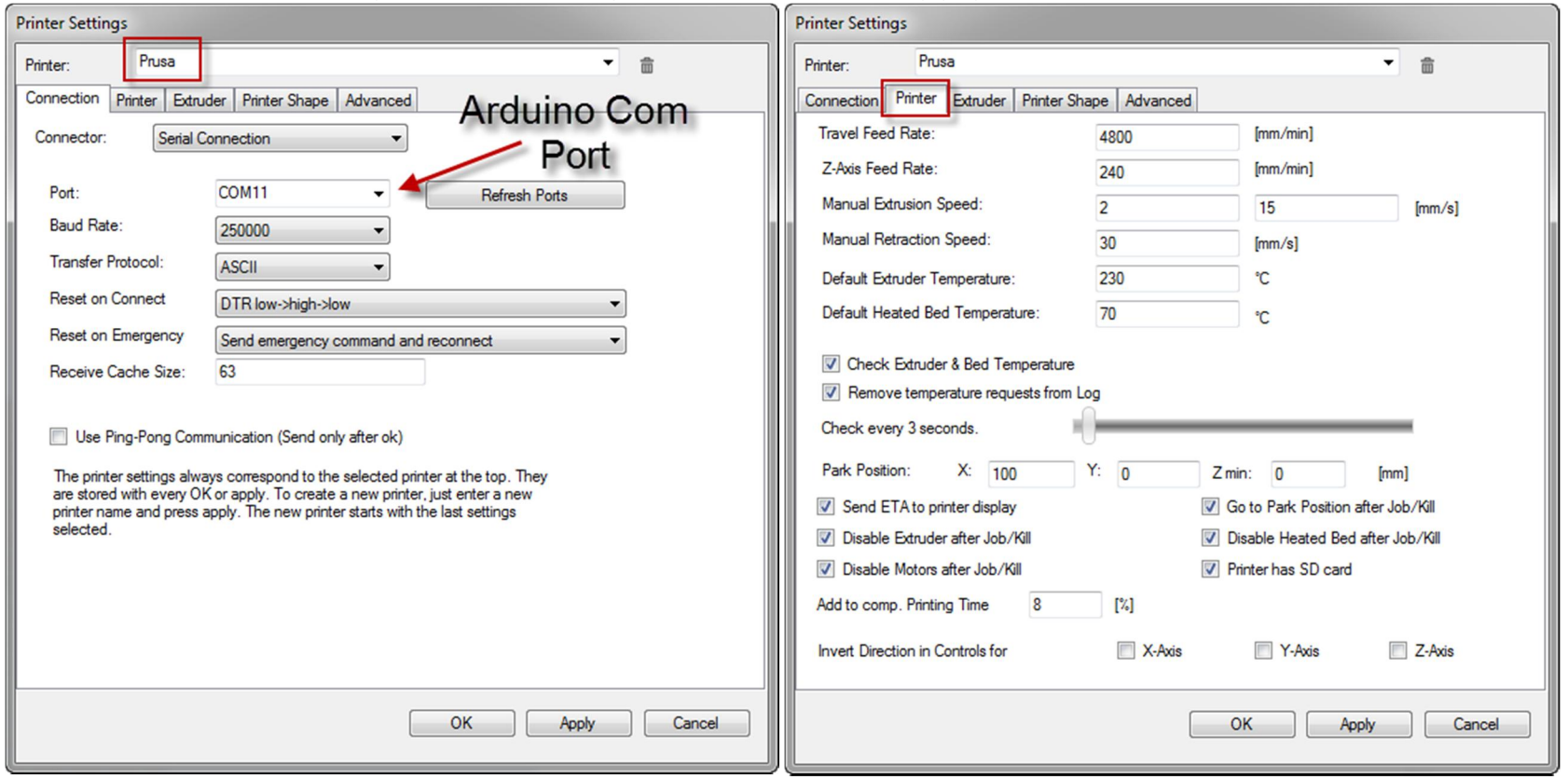
Open Repetier Host

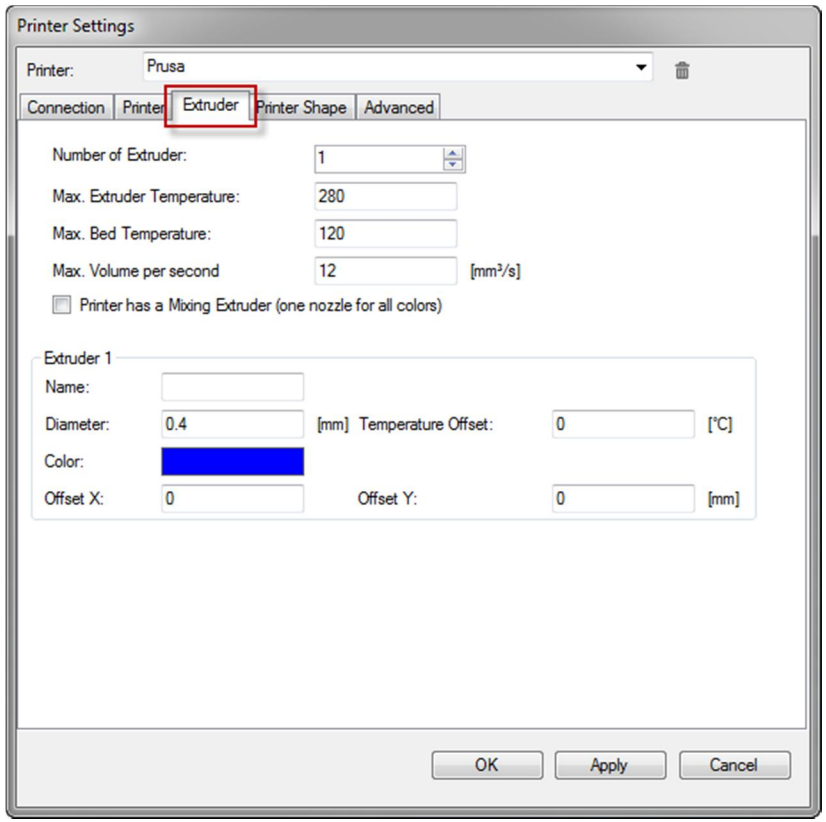
Click “Printer Settings” Make sure the “easy” mode is off (red)

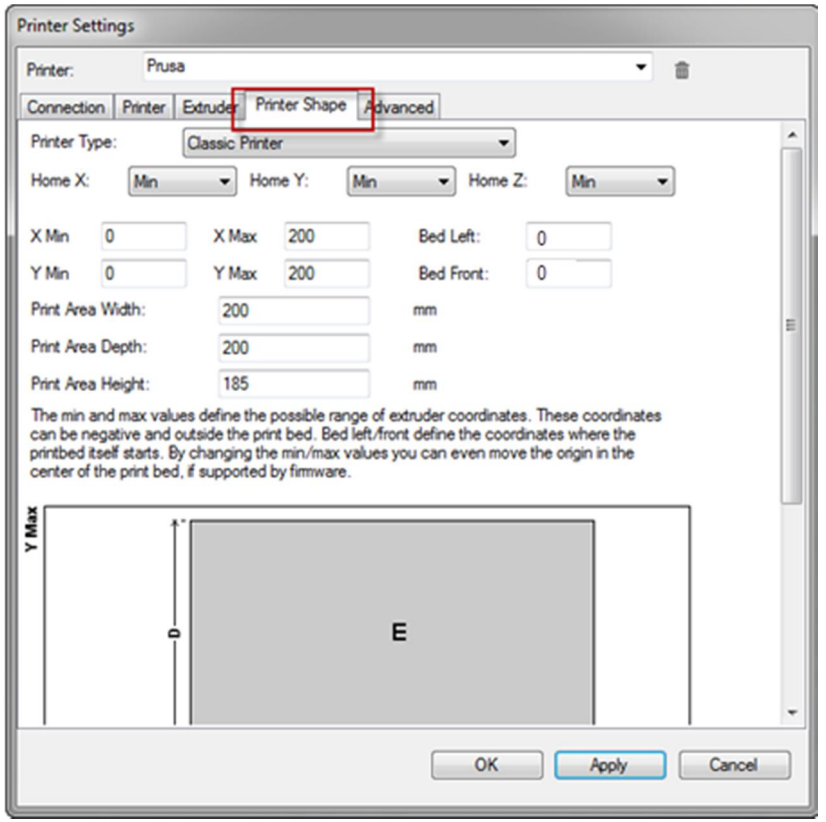


Enter the settings as shown below:

Enter “Prusa” at the top to name the printer and click “Apply”



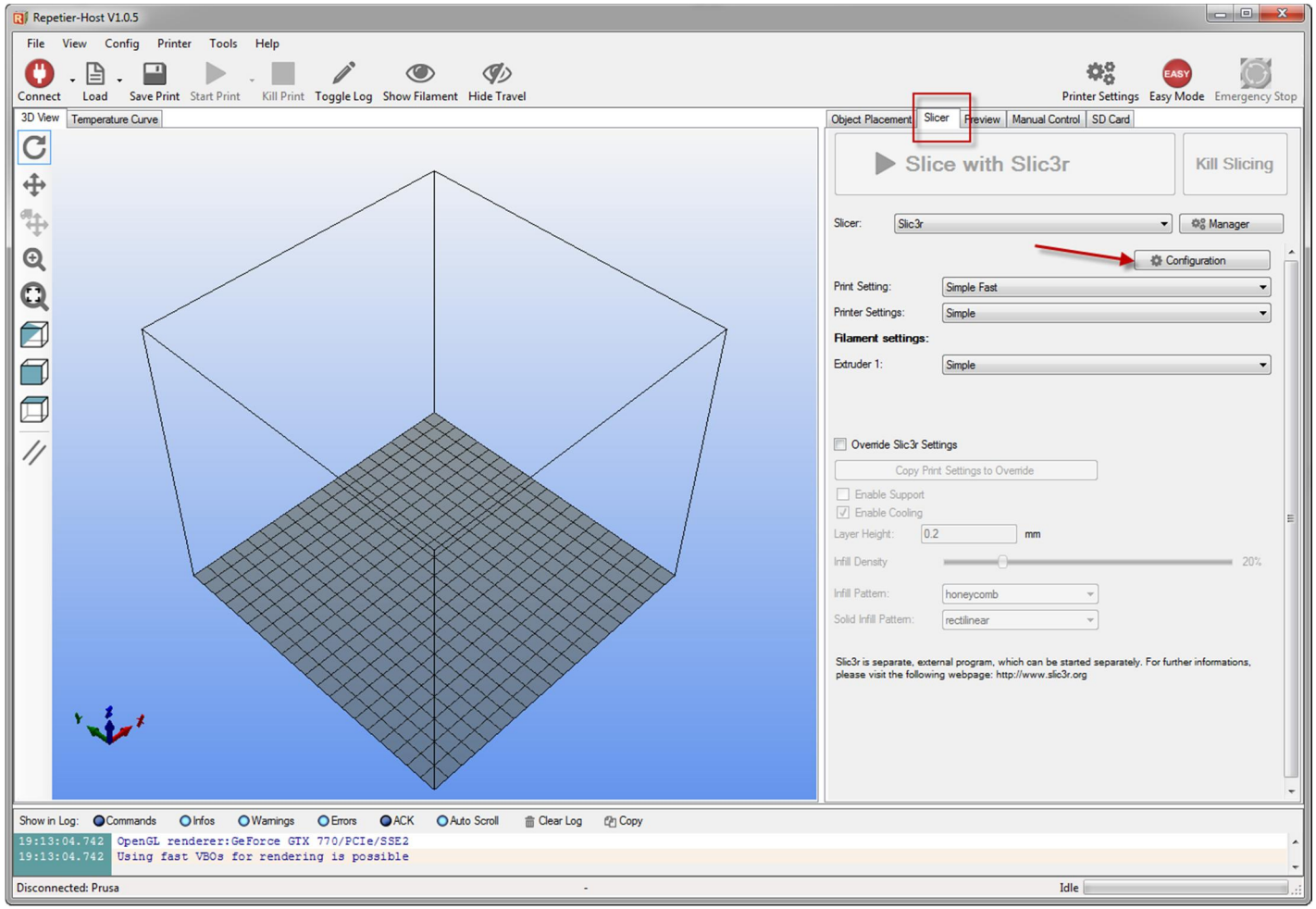




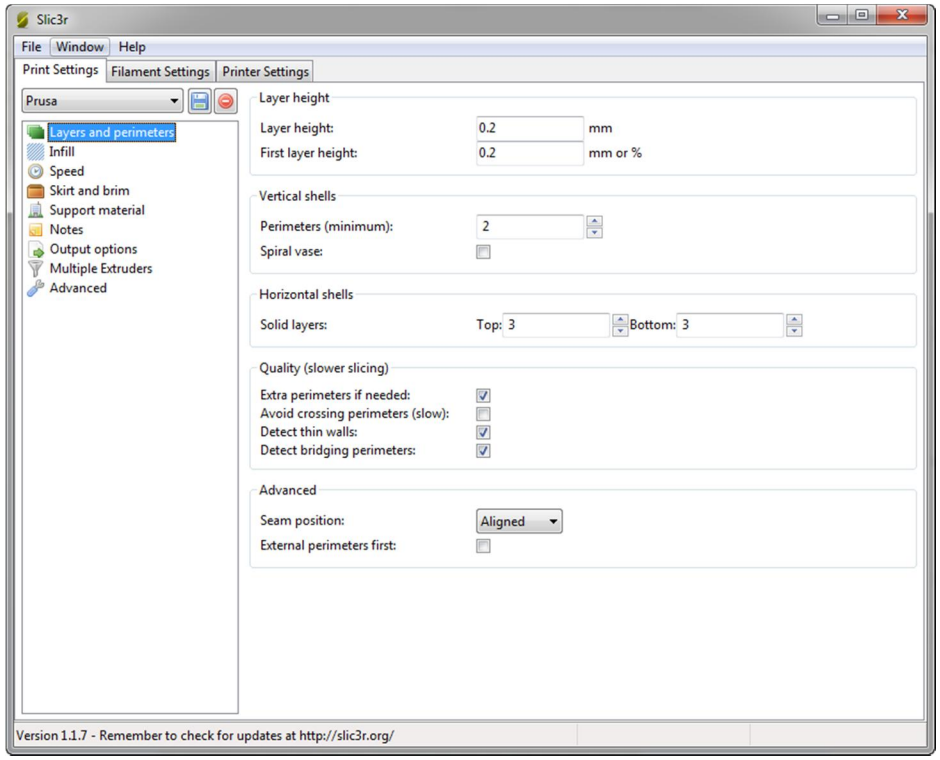
This should do it for the Printer Settings menu.

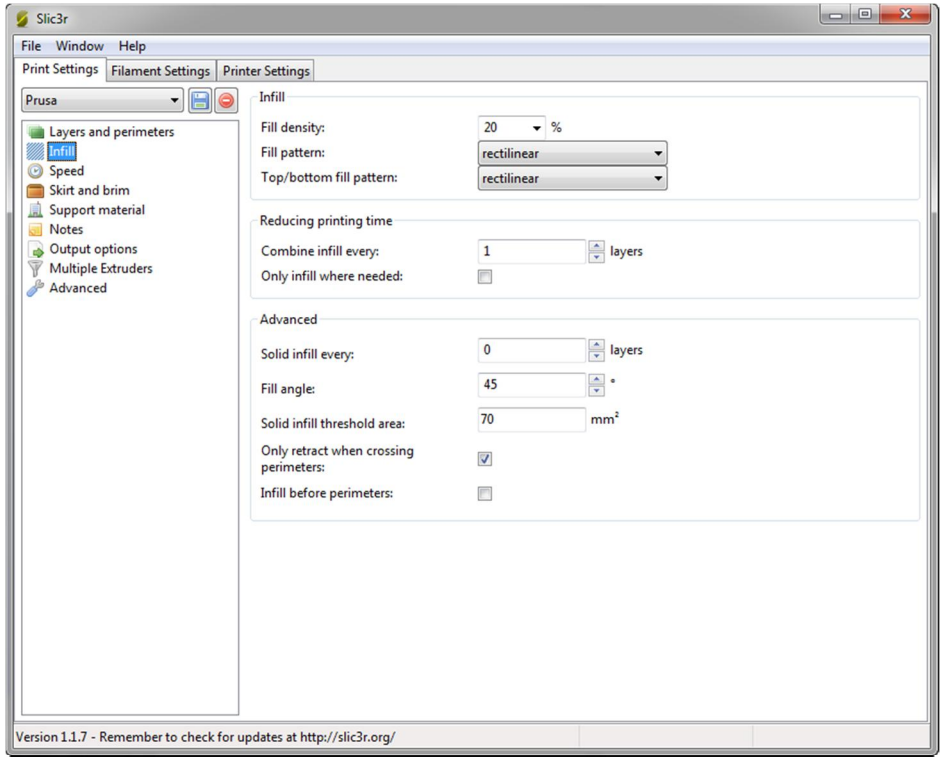
Step 9: Configure Slicer Settings in Repetier Host

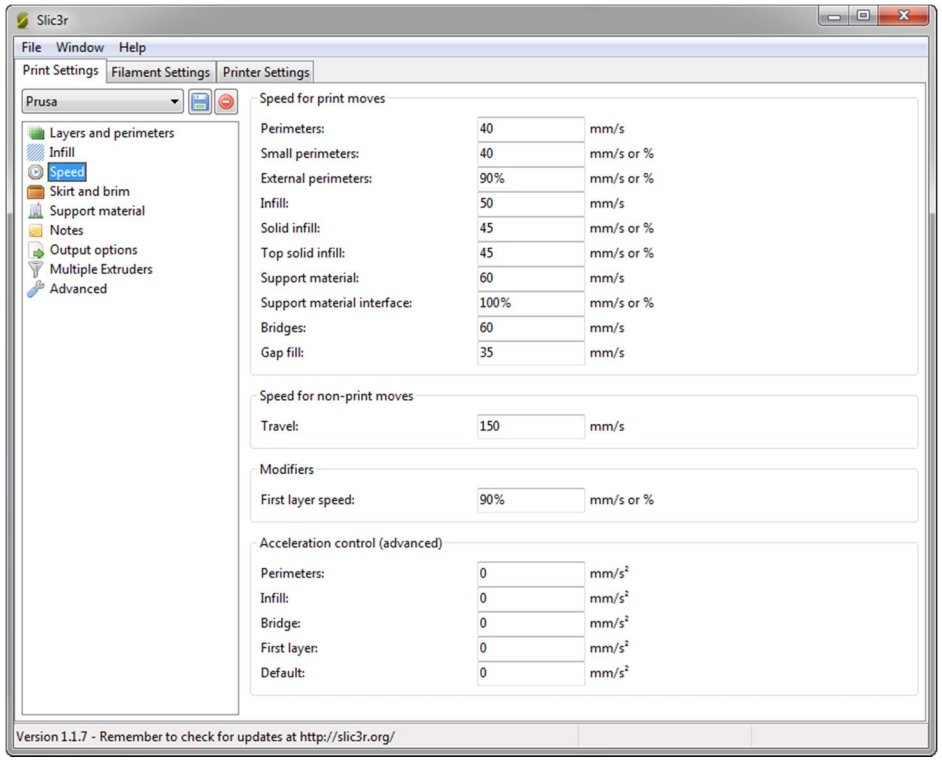
In Repetier Host, click the Slicer Tab and click Configuration:

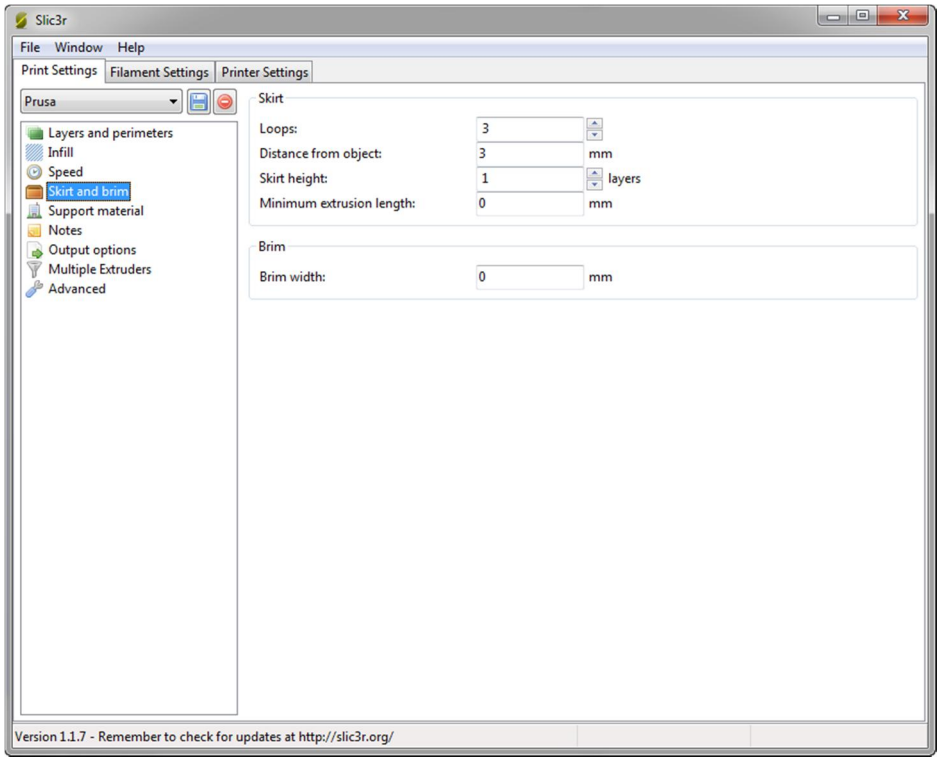


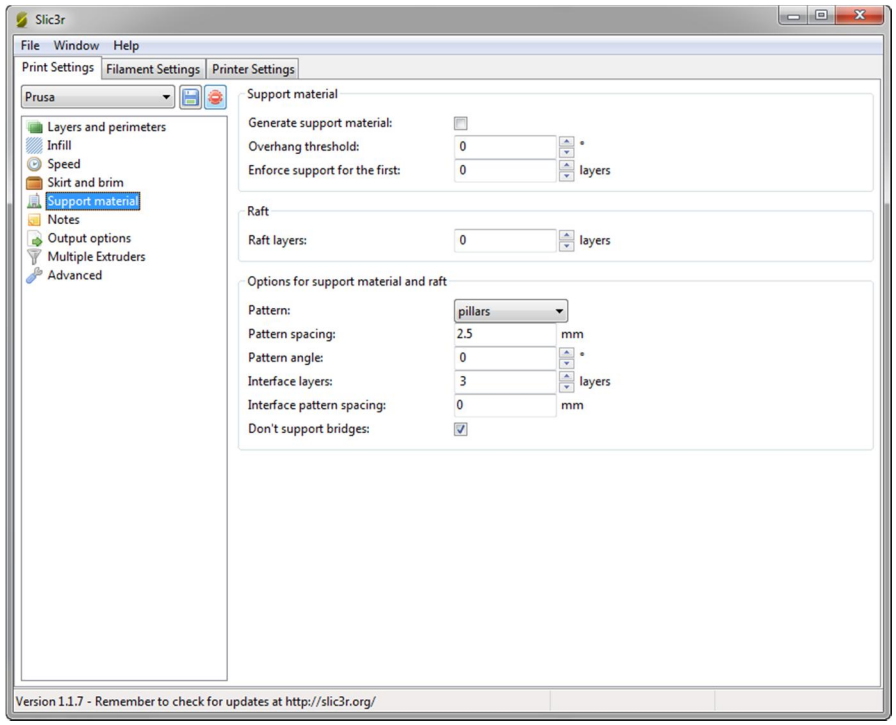
Here are some good starting points for Slic3r

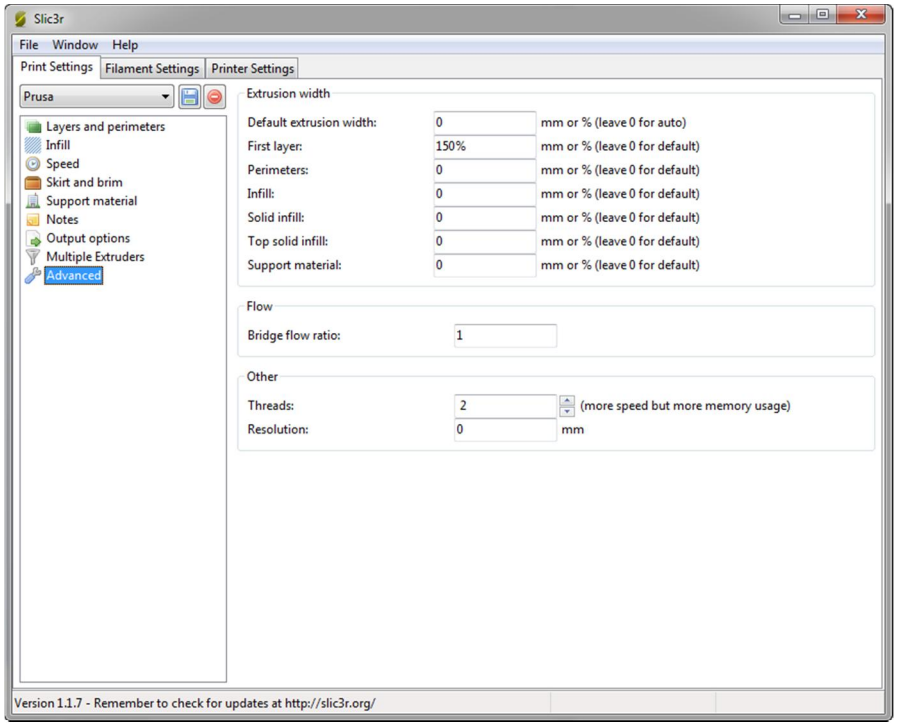


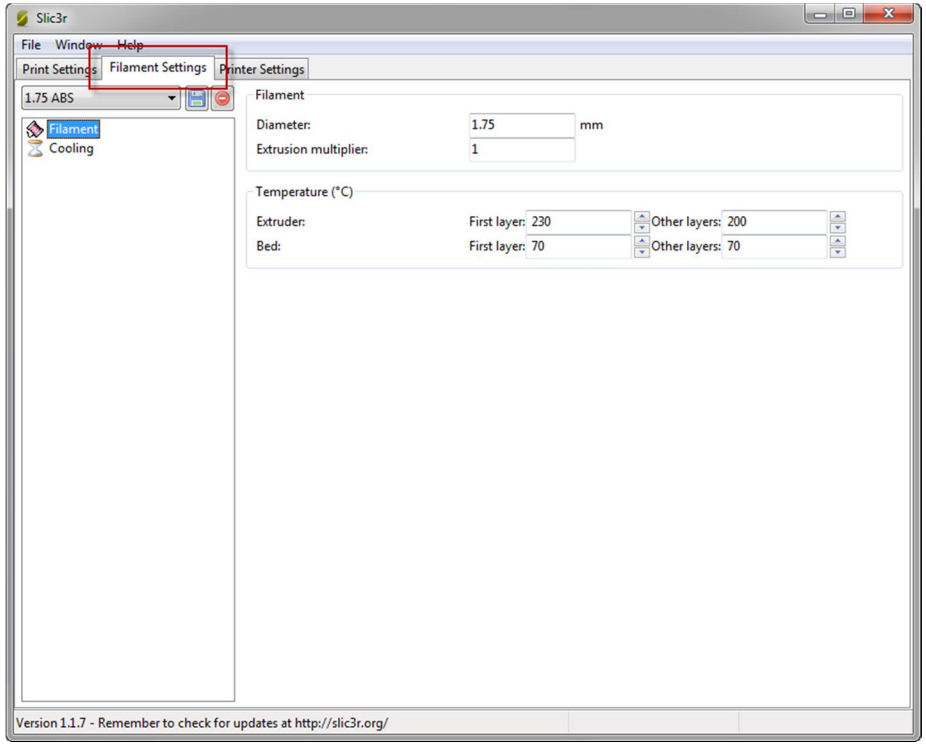


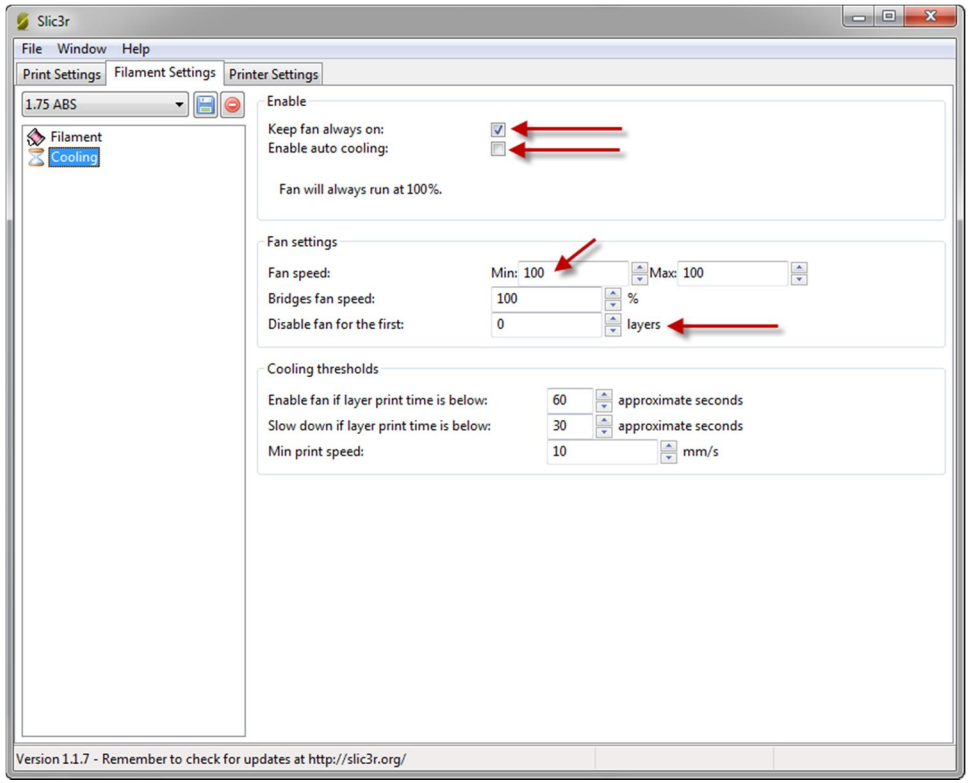


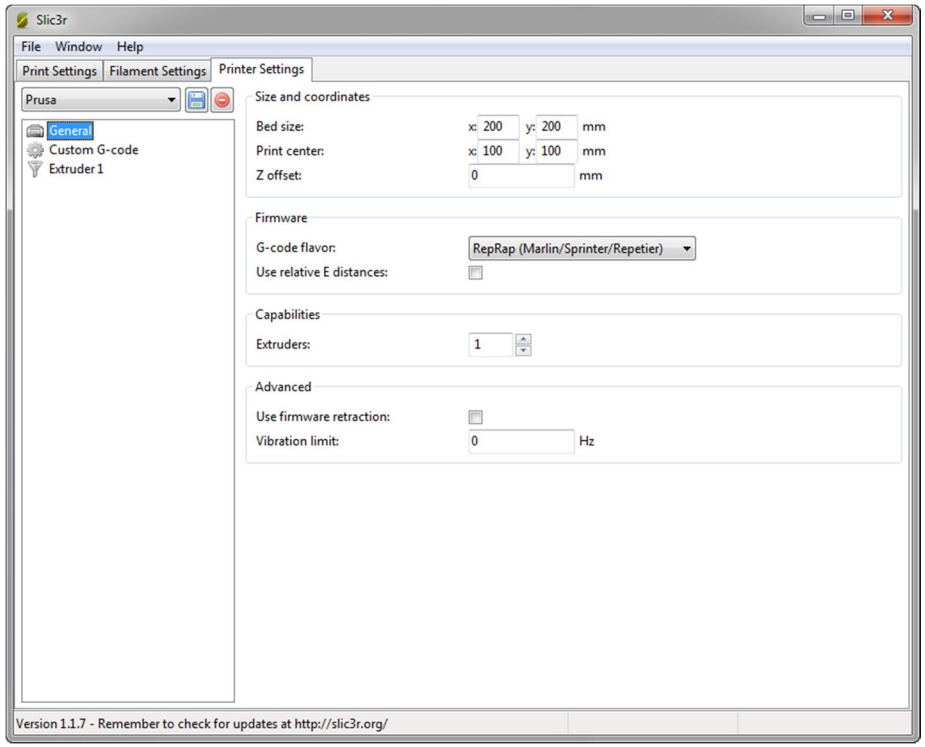


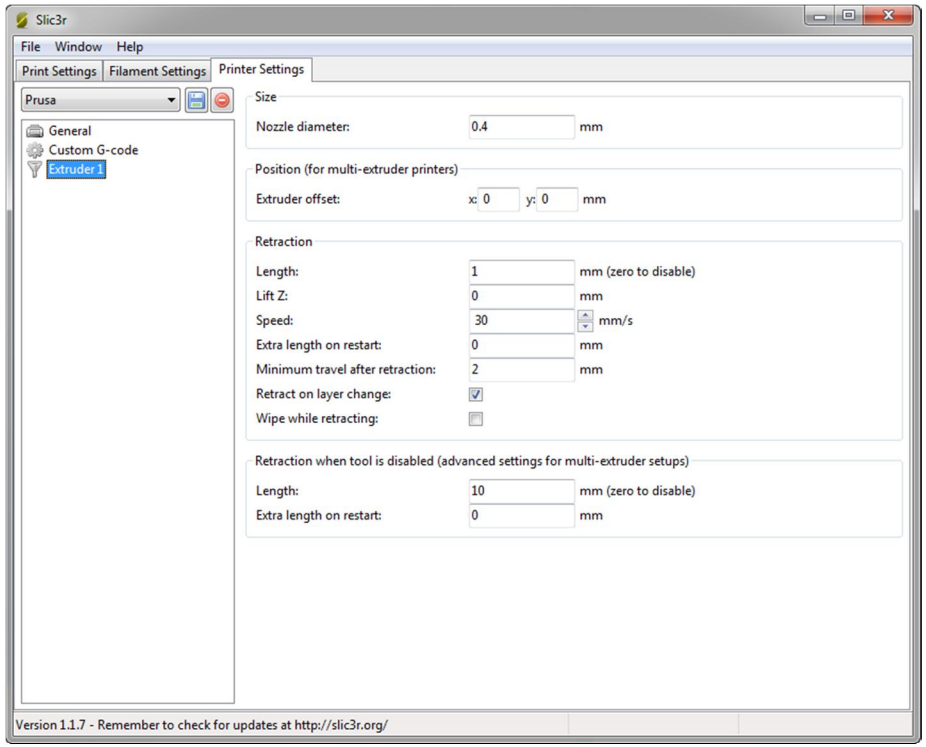










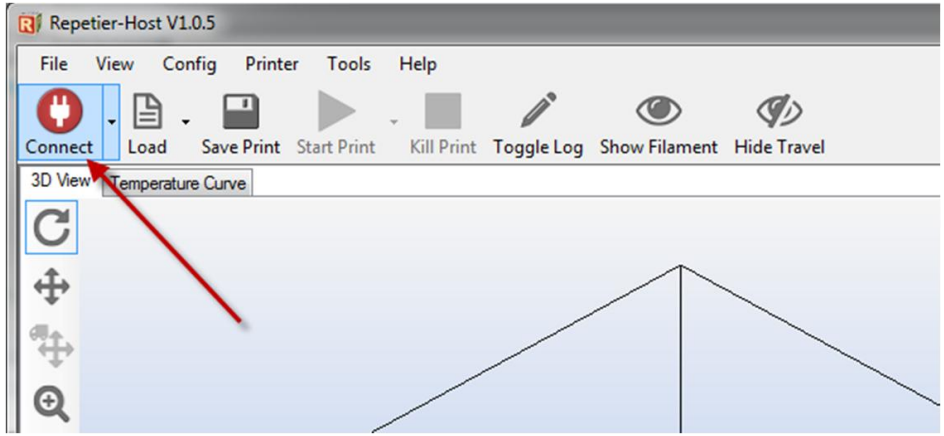


Now that we've set up the software, let's make some printer adjustments!

Step 10: Connect to printer in Repetier host

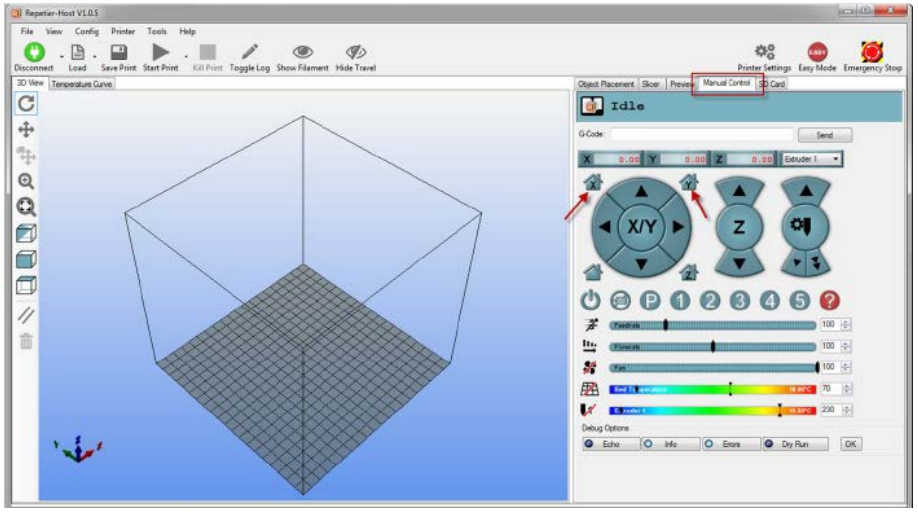
Plug the printer into 110v power

In Repetier Host, click “Connect” at the top left



Step 11: Home X and Y axes

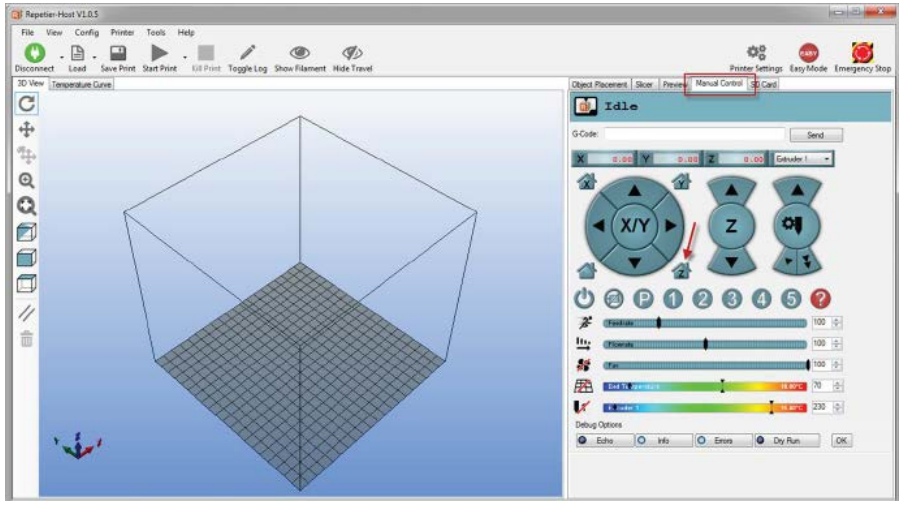
Click on the Manual Control tab in Repetier Host and click on the Home X and Home Y buttons:



The X and Y home position should be at the back right of the print bed, you want this to be about 1mm from the corner, loosen and adjust the X and Y end stops to adjust the distance.

Step 11: Home Z axis

Click on the Manual Control tab in Repetier Host and click on the Home Z button:



This will bring the entire X carriage down so the hot end just about contacts the bed. Before you adjust the end stop for the Z axis, measure the distance between the bed and the nozzle, if you can it helps to make a cardboard spacer for the next step.

Step 12: Level print bed

Click “Disconnect” in the top left corner of Repetier Host and disconnect the printer from 110V power as well as the USB from the computer.

Using the spacer you made in Step 11, manually move the print head to the left side of the printer. Use the spacer to adjust the bed height with the thumbscrews at each corner. Move the bed to the back and repeat the process for the front left of the bed. Move the print head to the right side of the front of the bed and repeat.

Step 13: Set proper Z end stop height

Connect the printer to 110v power and connect the USB cable to the computer. Open Repetier Host and connect to the printer.

Go back to the “Manual Control” tab and home X, Y and Z.

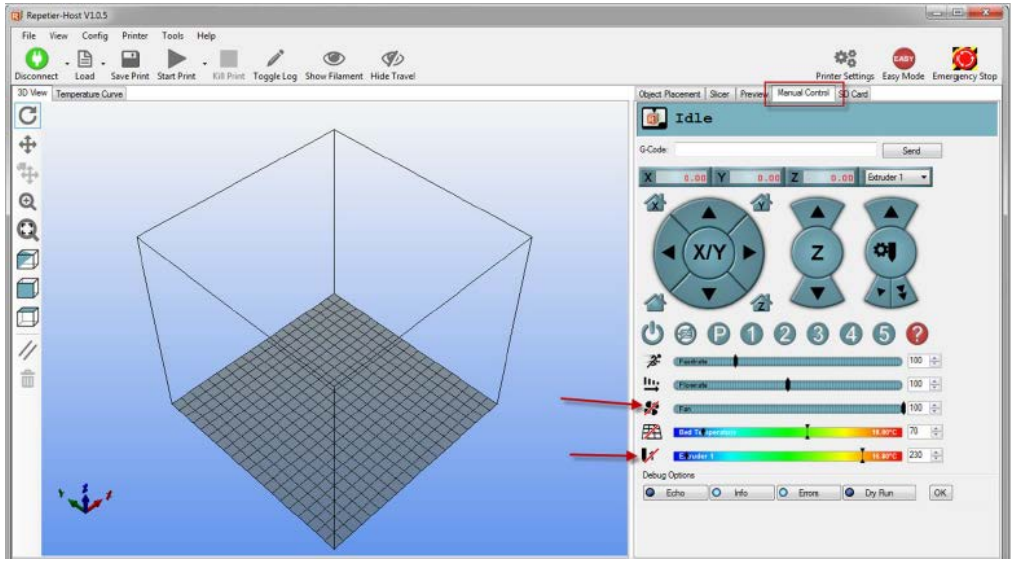
Grab a sheet of paper to set the Z height properly, bring the Z axis end stop down slightly and re-home the Z axis. We want the hot end nozzle to cause friction between the paper and the Glass on the heated bed.

Don’t get discouraged, this is the most challenging part of setting up any 3d printer, keep at it and you’ll get it!

Once you have the height set right at the X and Y home, use the controls in Repetier host to lift the Z axis 1mm and move the X to the other side, don’t worry, it won’t go further than the firmware will allow (which is 200mm). Move the Z axis down 1mm and check the gap with paper on that side, use the thumb nut on the underside of the bed to finely adjust the tension between the paper and the Glass on the bed. Repeat this for the front left and right corners of the bed.

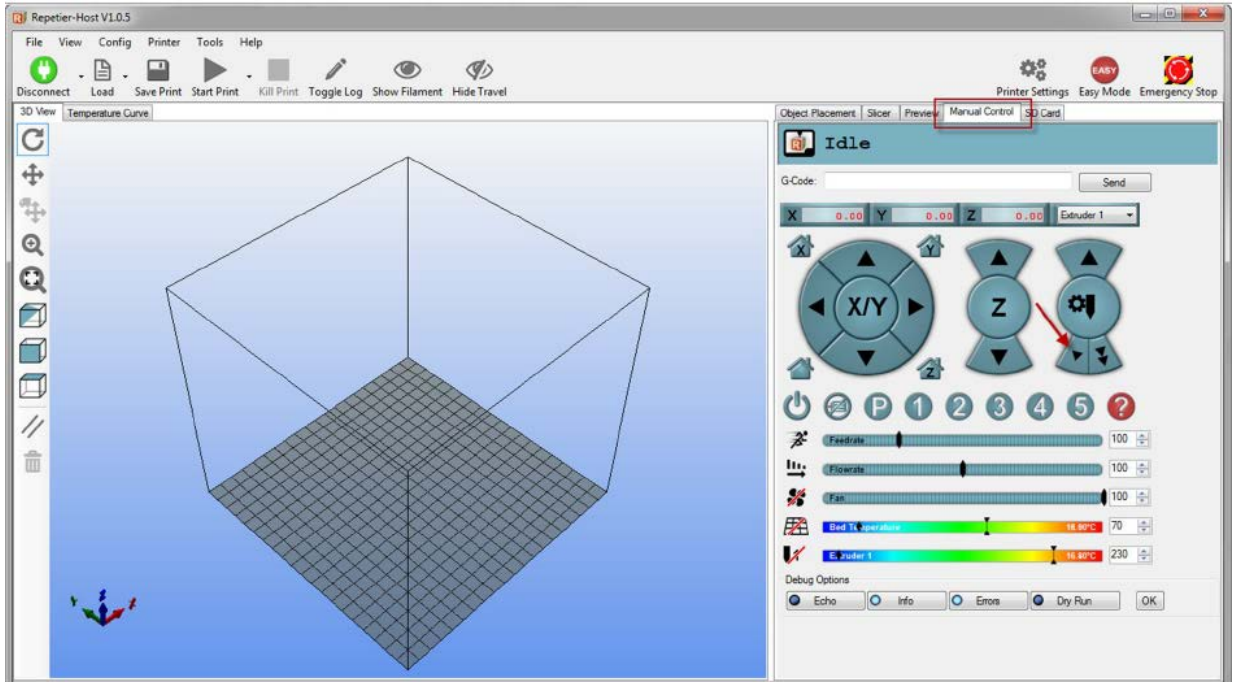
Step 14: Load filament

Click the fan and extruder icon to turn the hot end on:



Tip: when pre heating the hot end, **ALWAYS** turn the fan on.

When the hot end reached temperature (black slider on the rainbow colored bar meets the brackets). Insert filament into the left side hole on the top of the extruder and manually extrude 50mm of filament, it will start coming out of the nozzle as it feeds through.



Congratulations!

You are now ready to slice and print!