Robo Support Documentation

Release 0.1.0

Robo

Mar 21, 2017

Contents

Greetings, Maker!

Thank you for your purchase and welcome to the Robo family! We really love 3D printing and our aim is to get this amazing technology into the hands of as many people as possible to see what awesome creations spring from your imagination.

Here you'll find all of the information you need for a seamless 3D printing experience with Robo C2. This next-generation 3D printer includes a wish-list set of innovative features required in a modern, connected smart device to make 3D printing fun, easy and accessible to everyone.

To get the most from your Robo C2, please review the full manual.

Happy Printing,

Coby Kabili and Braydon Moreno, Robo Co-founders

CHAPTER 1

Make more with Robo C2

The Robo C2 compact smart 3D printer with Wi-Fi gives you the freedom to make whatever you can imagine right from your mobile device using the Robo app.

- Engineered to fit anywhere in your home or workplace
- Efficient 5 x 5 x 6 in print size
- 3.5” built-in color touch screen
- Class-leading print speed
- Automatic self-leveling
- Prints 20+ materials types that don’t require a heat bed

CHAPTER 2

Make smarter with the Robo app

Simply download the free Robo app to experience the next level in 3D printing and get more out of everything you make.

- Connect and print right from your mobile device
- Monitor the progress of every print
- Manage multiple prints and printers at once
- Manual control panel lets you handle every detail with precision
- Connect to cloud libraries and access thousands of 3D models
- Make in-app purchases (filaments, accessories, print kits and more)

CHAPTER 3

Logging into your Robo account

To enjoy the best possible Robo app experience, be sure to log into your Robo account. Logging into your account lets you do things like browse models from your cloud storage, and even post status updates via social media to show off all the cool stuff you're making with Robo C2.

Use the following steps to log into your Robo account:

1. Open the Robo app open and select "Menu" (insert button here) in the upper right corner
2. Select "Log In" on the right hand side of the screen
3. Follow the prompt to successfully login to your account

Getting Started

What's in the box

Besides your new Robo C2, you will find the following in the box:

1. Quick Start Guide
2. Autodesk Fusion 360 design software free 1-year voucher
3. 9 print bed tape covers (with 1 already applied to your print bed).
4. Robo stickers to place EVERYWHERE.
5. 19V power supply
6. Filament Guide Tube
7. 2 filament spool arms
8. Toolbox with the hotend cover, 2 allen wrenches, lubricant, screwdriver.
9. Robo USB drive
10. 500g Robo light blue filament
11. Spatula

Unboxing Robo C2

Now that you've received your Robo C2, it's time to unbox it and get familiar with your printer and accessories.

Your C2 is housed in 3 styrofoam pieces, secured together by a nylon strap. Simply lift the printer from the box using the strap and set it down.

Unclip the black nylon strap and remove the two halves of the top styrofoam shell.

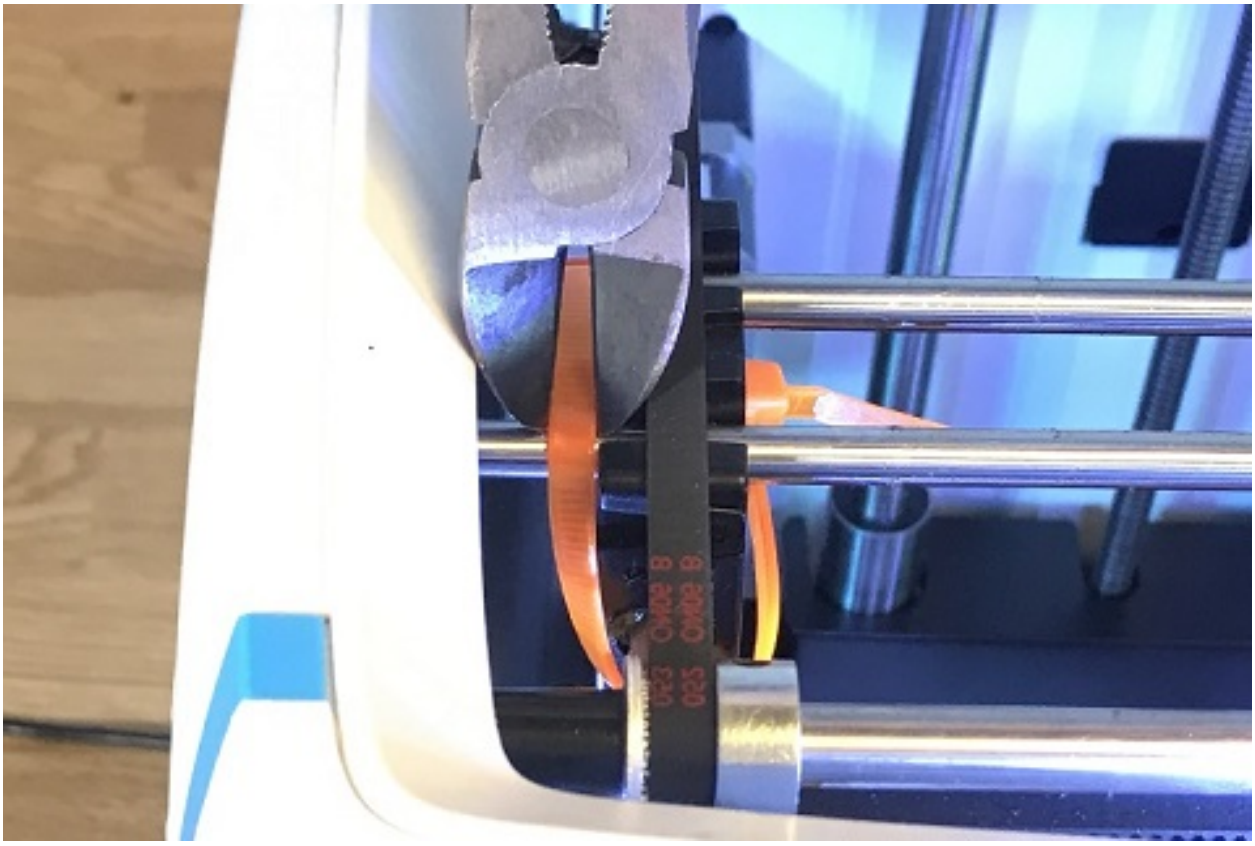
Finally, using the handholds on the bottom of your C2, lift the printer out of the bottom styrofoam piece.

Tip: Save your printer box, nylon strap, foam inserts, and inclusions box for transportation. Also, you might need the original packaging to exercise your warranty or ship your printer in the future.

The printer's accessories are stored in the inclusions box inside the printer. Simply slide the inclusion box out and be sure to remove the foam.

Now we are ready to take off the additional shipping material and zip ties. There are 4 orange rod holders that need to be taken off. Simply push on the clip and it will come off. There is one at each corner of the top gantry

Next, remove the zipties securing the rods to their plastic brackets



Register your Robo C2

Before you start, please register your Robo C2 for any servicing or warranty needs if they're ever required. You can register your product by visiting robo3d.com/register.

Initial set-up

Now let's move forward with your initial set-up of Robo C2.

First, insert the spool holder into the rear slot of the printer.

Next, insert the filament feed tube into the filament sensor block, and then insert it into the extruder.

Inside the toolbox you will find the hotend cover. Go ahead and take that out and place it over the hotend. It is held in with magnets so it just pops right in.

From here you'll want to connect the power cord to the designated area on the back of the printer and then plug it into an AC outlet.

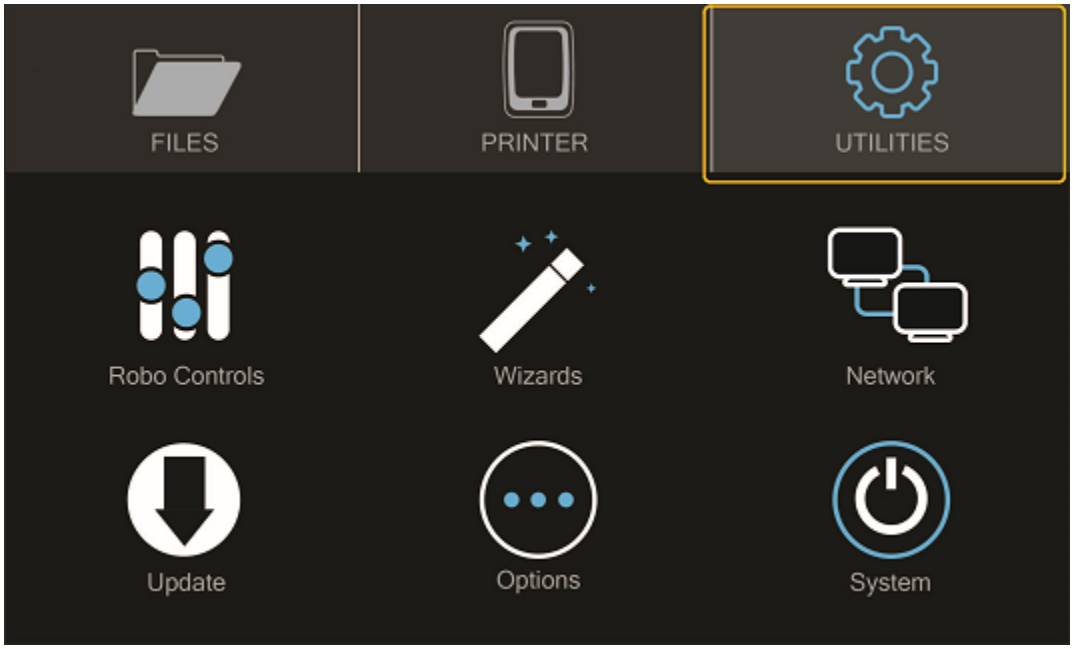
Now go ahead and turn on the printer.

Loading filament

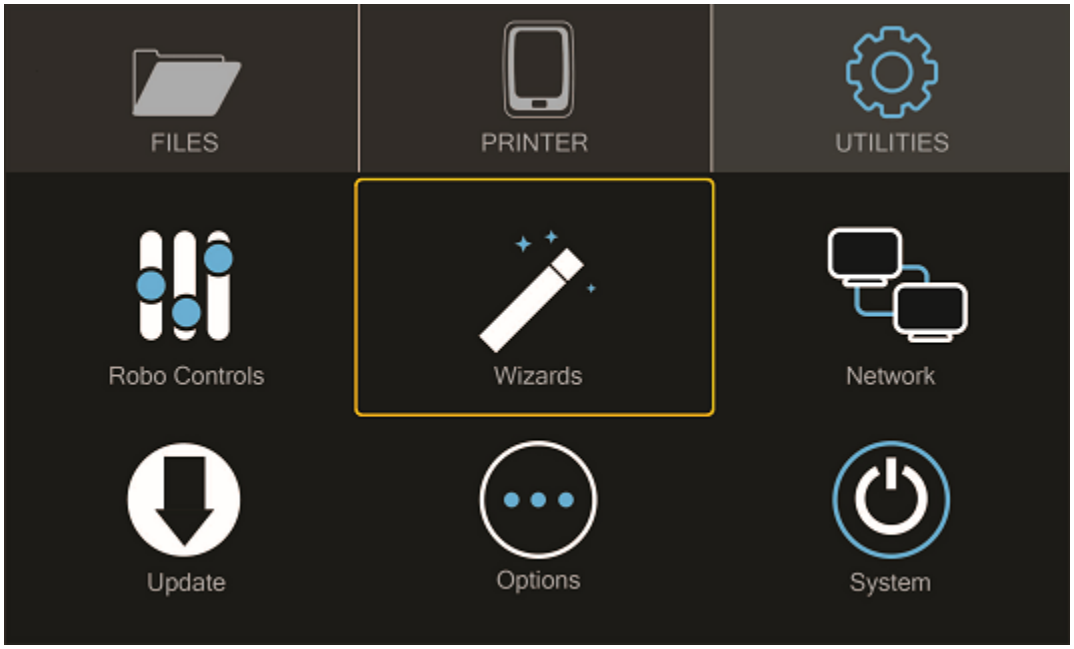
To begin loading filament, hang your filament spool on the spool holder. Be sure to unroll at least 11”— or 30 centimeters — of filament and thread it through the base of the filament sensor block and into the filament feed tube.

Continue feeding the filament through the filament feed tube until it reaches the extruder. Then, press the extruder button and feed the filament into the printer’s gears.

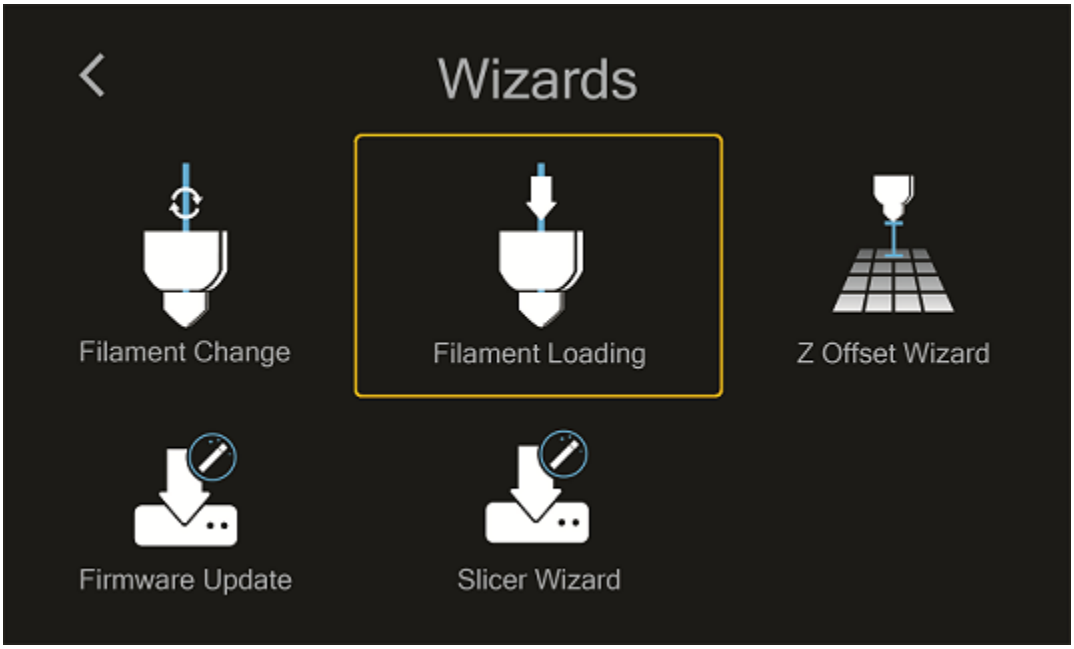
Now select UTILITIES on the touch screen.



Then select WIZARDS from the list.



Finally, select FILAMENT LOADING WIZARD.



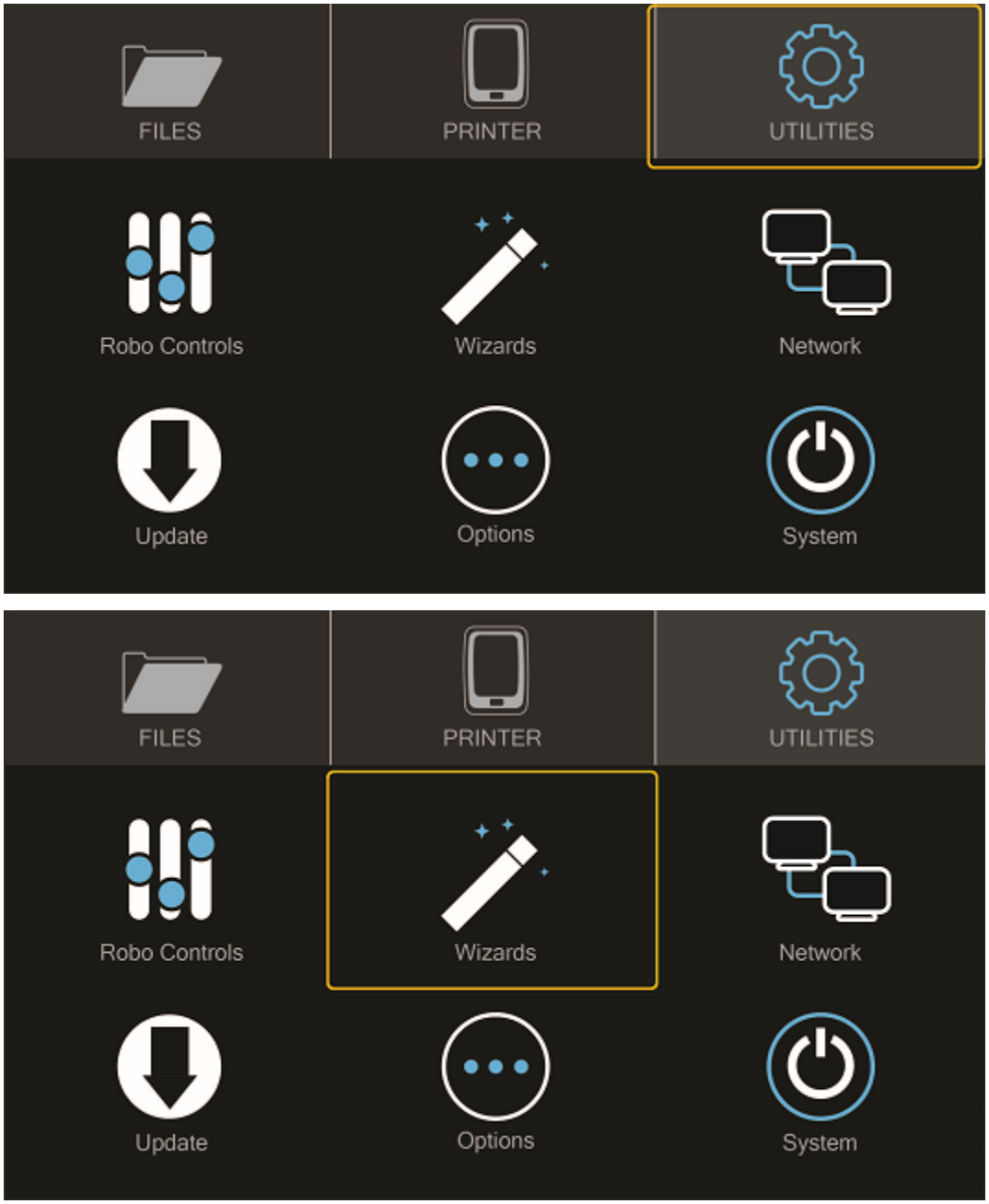
Follow the on-screen prompts:

- Heating up the printer
- Ensuring you've cut off the tip of the filament
- Now, look for filament to exit the nozzle

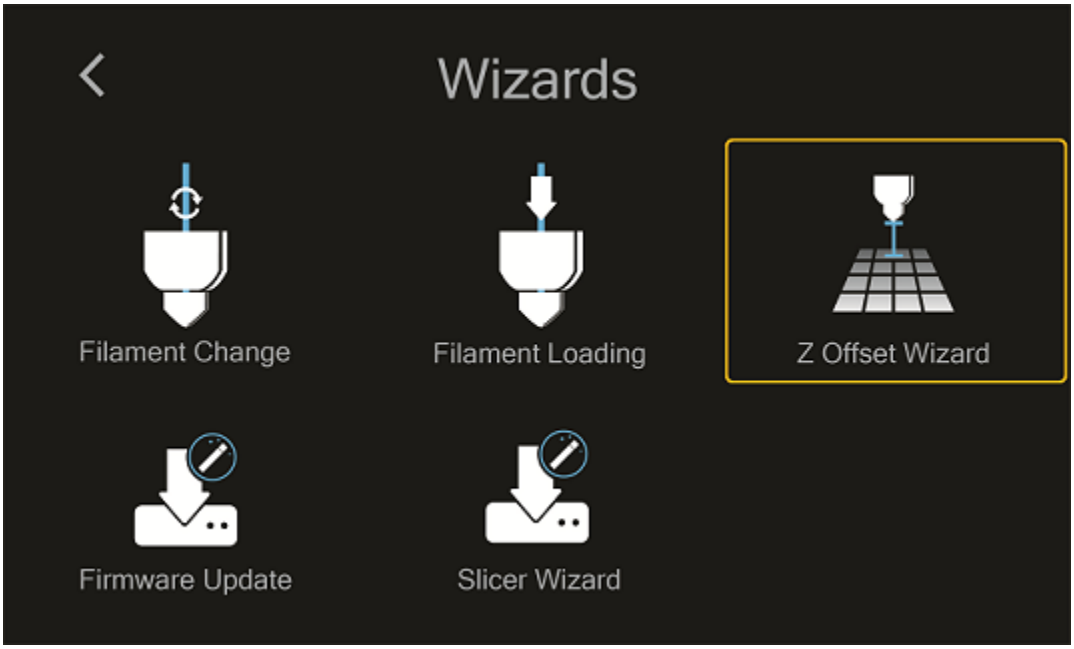
- Press NEXT, and
- Press FINISHED

Calibration and setting Z offset

Next you'll want to calibrate Robo C2 by selecting UTILITIES on the touch screen, and then select WIZARDS from the list.



From here you'll select Z OFFSET WIZARD.



Now, the printer will wait to calibrate its home position

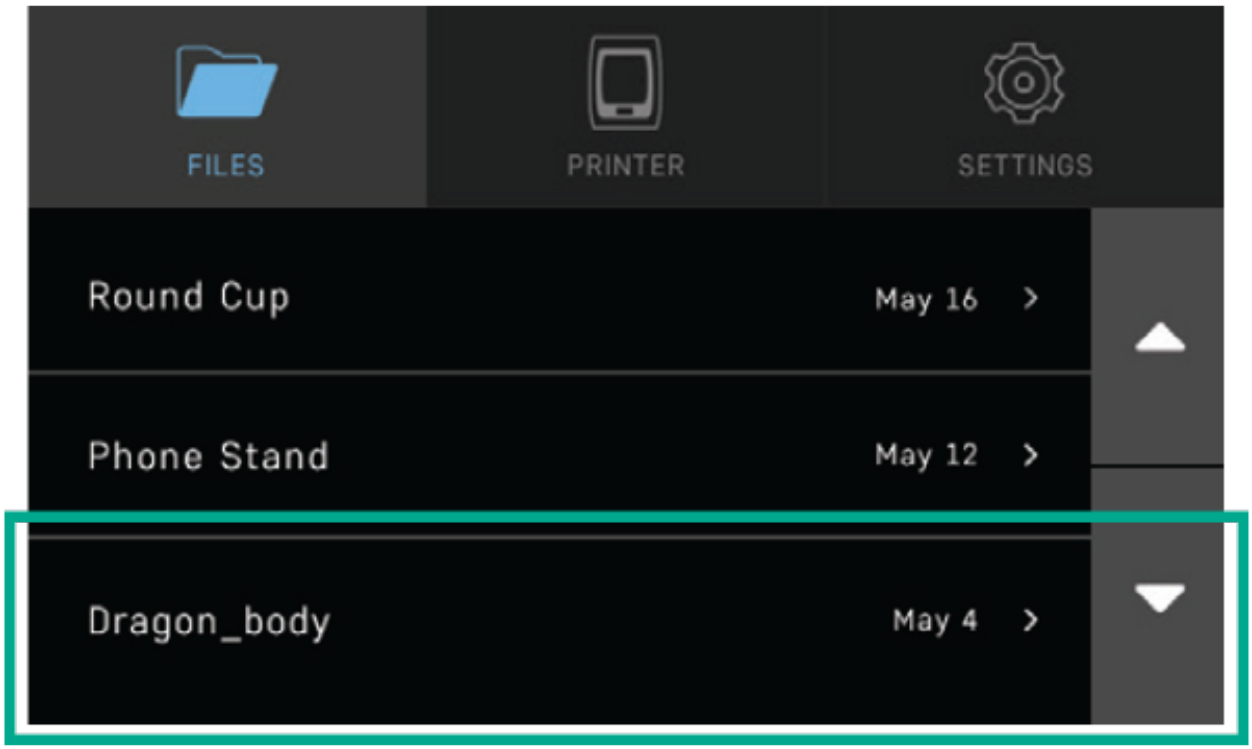
Press up and down on the arrow buttons while sliding a piece of paper between the nozzle and the print bed until you feel some resistance against the paper

Press FINISHED

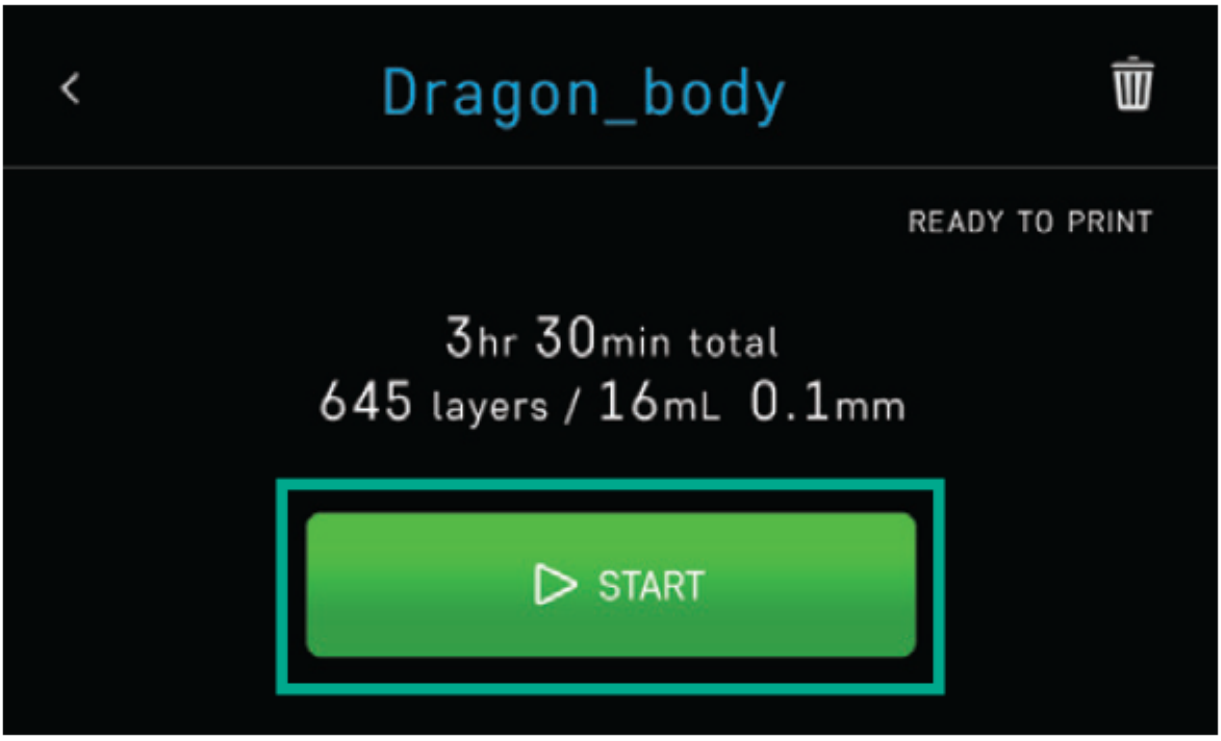
Note that you will see the offset progress and completion on the touchscreen.

The test print

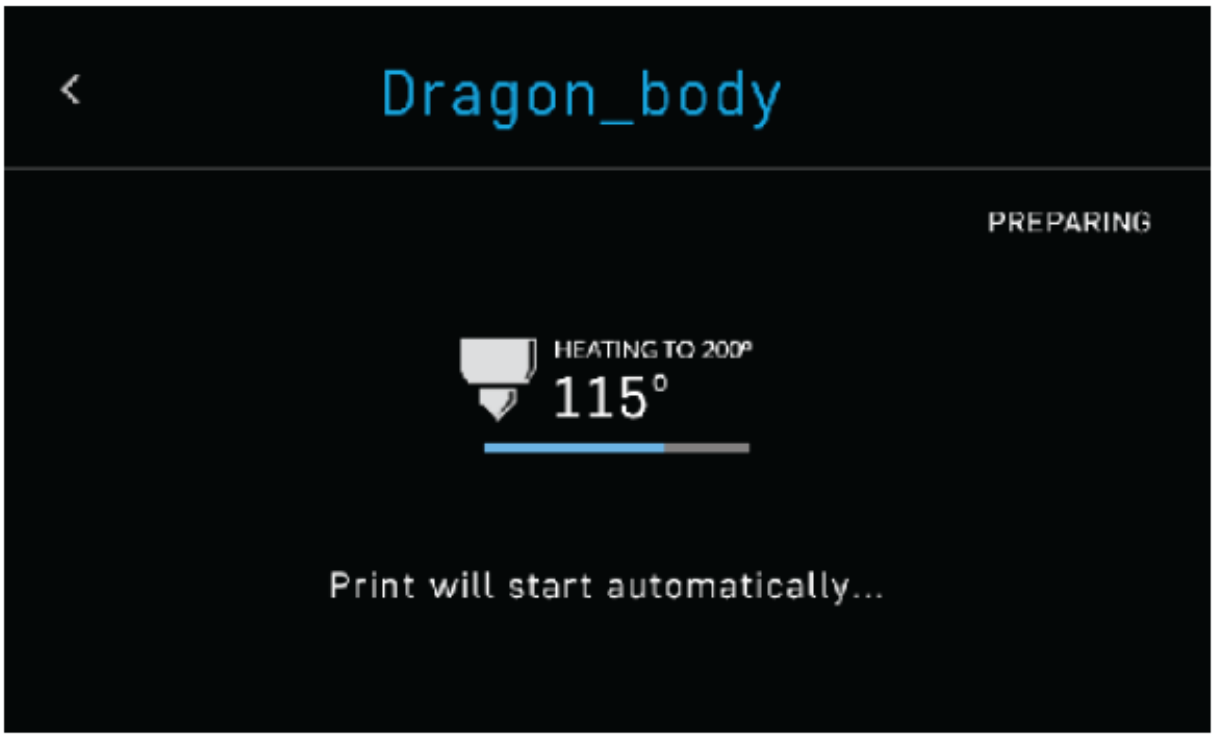
To create your first test print Select FILES on the home screen. Then select a file to print from the list.



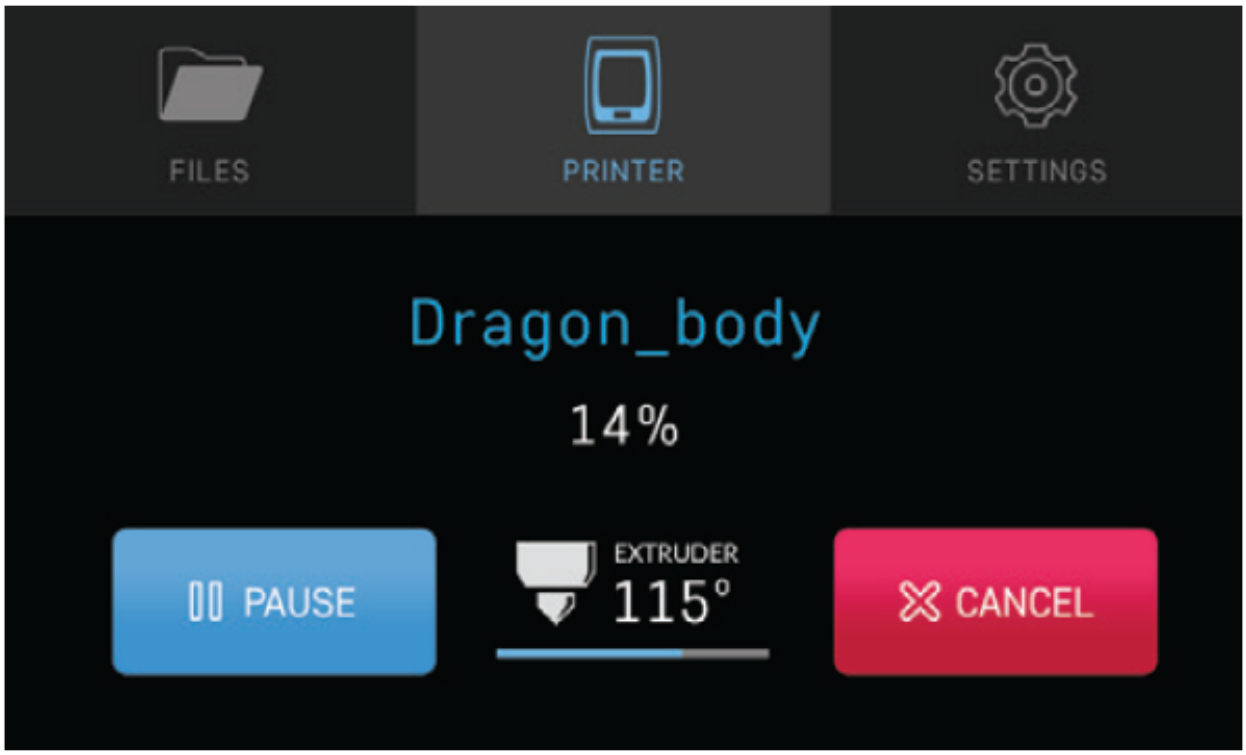
Now, select START to print—and be sure to wait several seconds while Robo C2 prepares to print the file.



The file will start printing.



Just note that you can select PAUSE to pause your print, or you can select CANCEL to cancel your print.



Removing the test print

When the test print is complete and cooled down, remove the print bed with the finished print still in place by lifting the bed up and away from the magnets. Slowly slide the print bed out of the machine with both hands. Now, carefully flex the print bed from several positions to help loosen the print from the print bed. Repeat this process until the most of the print is loose from the bed. Carefully remove the print from the print bed with your hand.

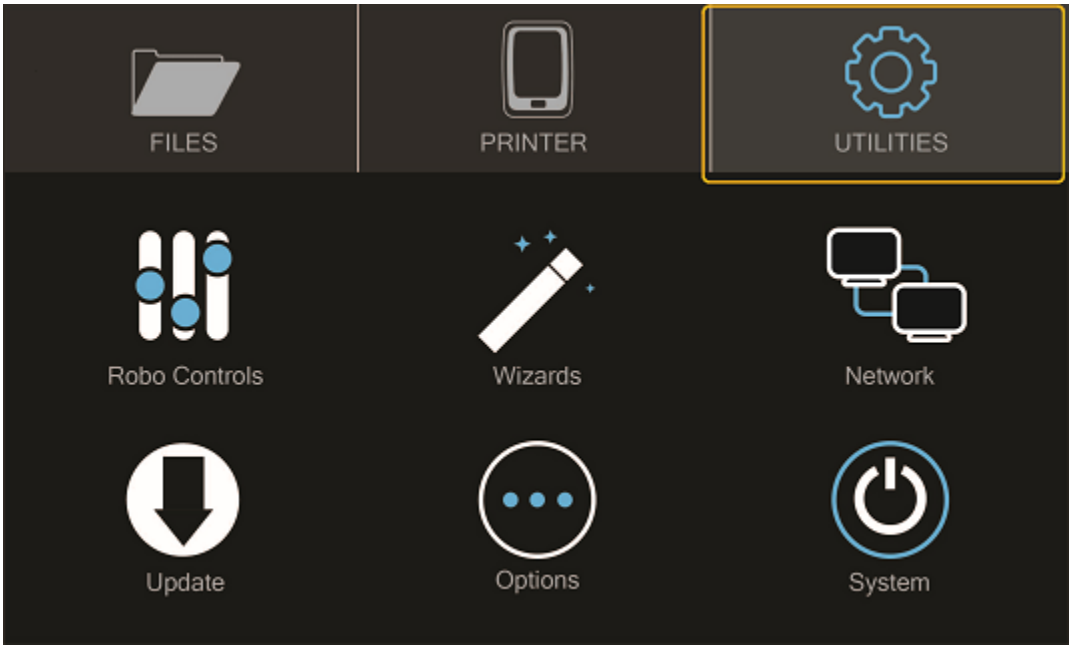
Note that if the print is not coming loose after flexing the print bed, put the bed back in Robo C2 and use the provided spatula to carefully remove the print at its borders. Then slowly work your way underneath the print until it's loose. Don't force the print loose by pulling it up directly up from the print bed, since this may cause your print to break.

Connecting to Wi-Fi

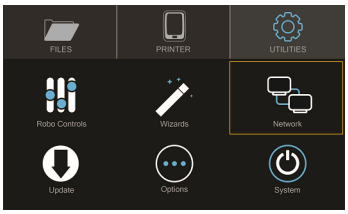
We highly recommend connecting Robo C2 to your Wi-Fi network. Doing so provides you with necessary updates that allows for a more enjoyable 3D printing experience.

Note: You can also use the provided Ethernet cable (LAN) to connect Robo C2 directly to your Wi-Fi network.

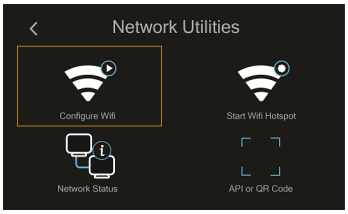
To begin connecting to your Wi-Fi network, Select UTILITIES on home screen.



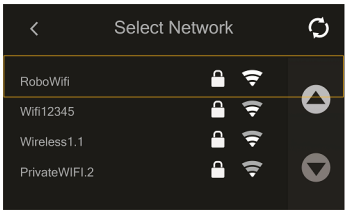
Select NETWORK.



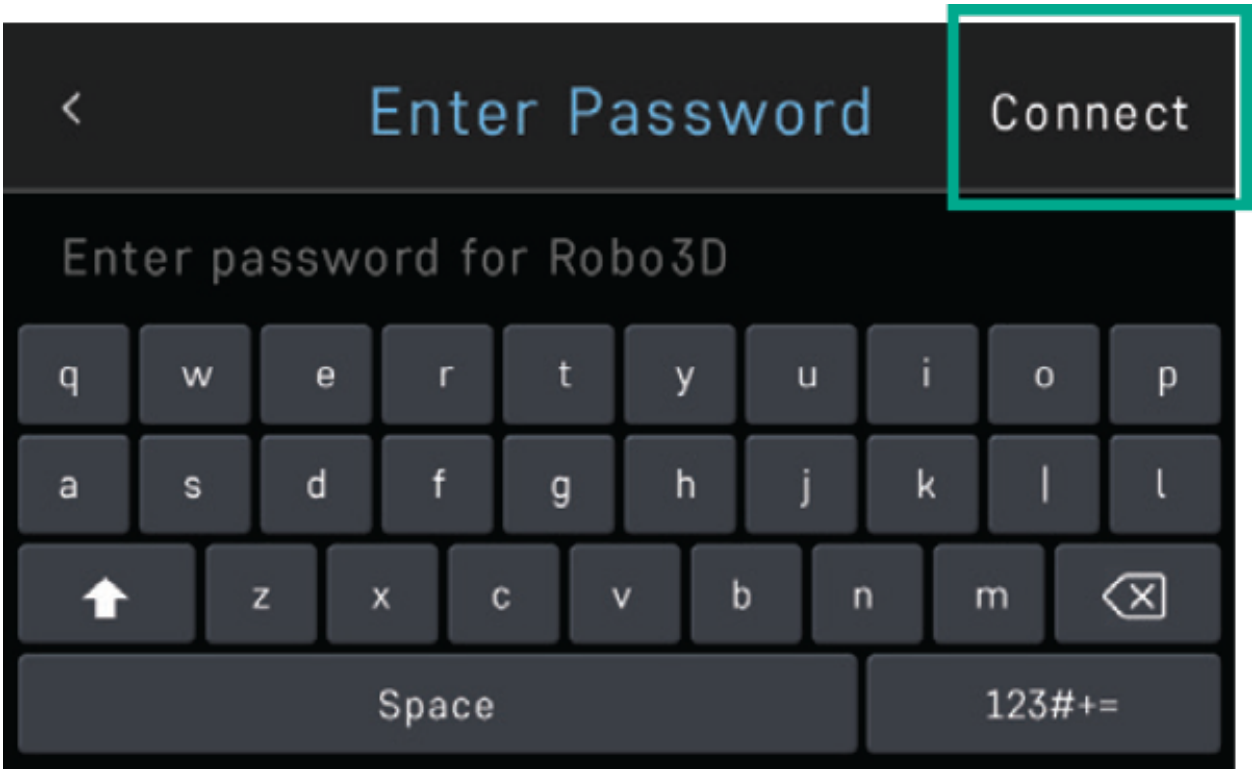
Select CONFIGURE WIFI.



Then select your Wi-Fi network and use the on-screen keyboard to enter your password.



Once you're done, select CONNECT.



Using Hotspot Mode

Your printer is capable of starting If no Wi-Fi signals are available for connection, you can use Hotspot Mode to emit a Wi-Fi signal from Robo C2 in order to connect to it wirelessly from your smart device. To access Hotspot Mode, do the following:

1. Select "Utilities" on the home screen of the Robo C2 touch screen
2. Select "Network" from the list
3. Select "Start Hotspot Mode" from the list

Operation

Display Screen

The color touch screen display on the front of your Robo C2 is the main access point for setting up, controlling, and reviewing all components of your 3d printer. You can navigate through the menus by touch or a stylus.

Files -Here you are able to navigate through your files, whether they are on a usb thumb drive or on the local hard drive internally.

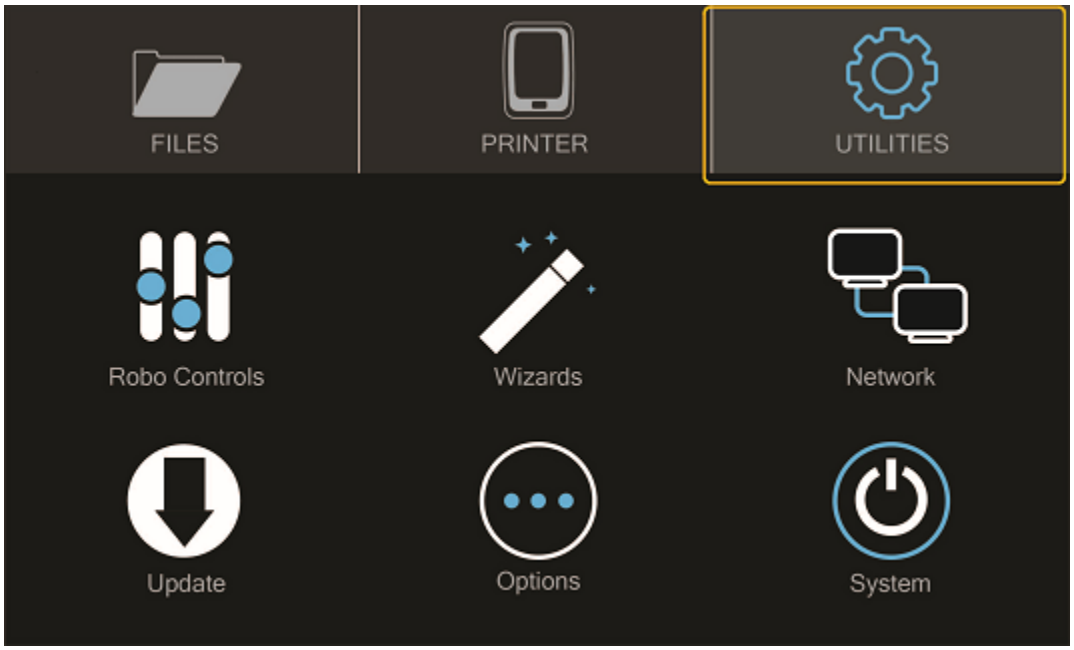
Printer -The print screen is the default screen when printing. This will show you file printing, extruder tempersture, a progress indicator, and pause and cancel buttons while in use.

Utilities -The Utilities menu offers a variety of options including: motor control, temperature control, z-offset wizard, network settings, and a way to update your printer

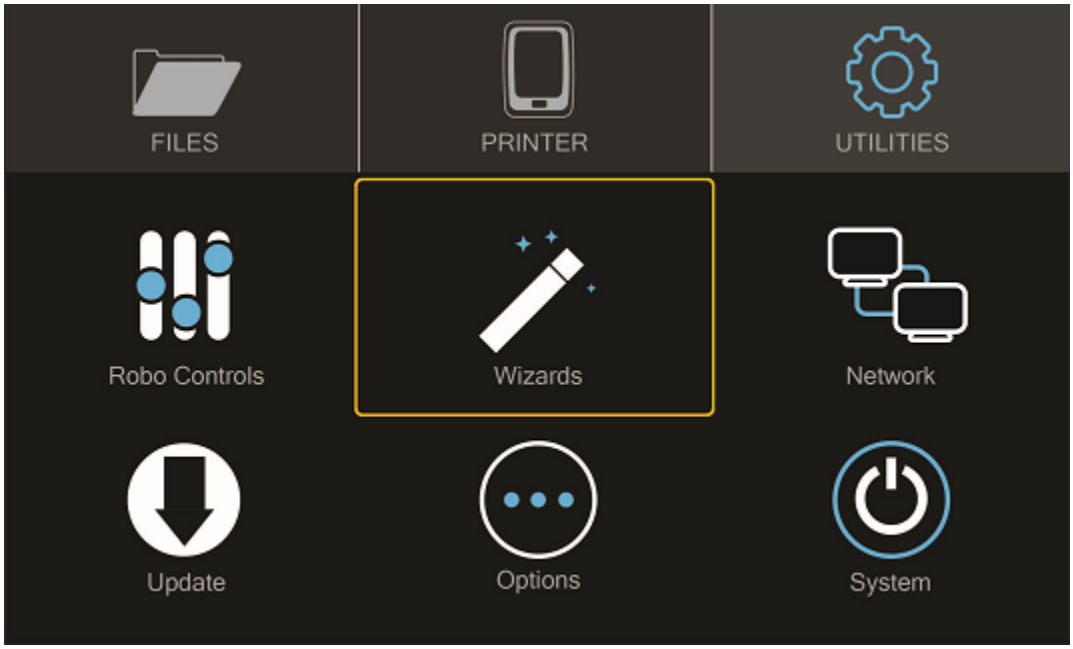
Setting the Z offset

Here we will calibrate Robo C2 by setting the Z-Offset and making sure your first layer is applied correctly

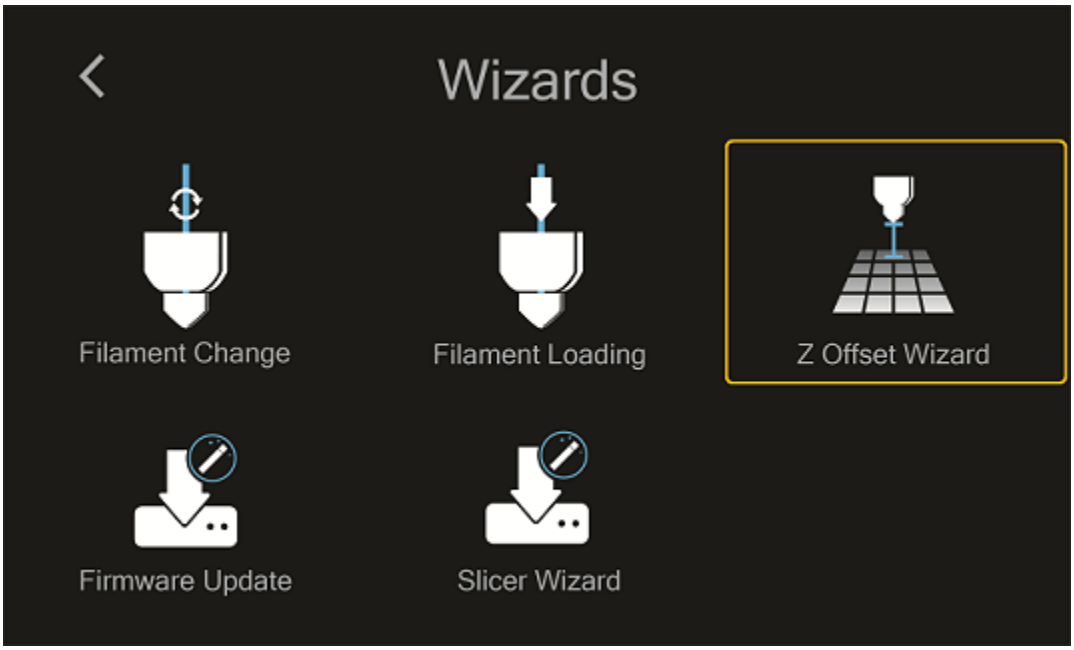
From the home screen select “Utilities”



Then select “Wizards”



Next select “Z-Offset Wizard”



Your printer will now home itself and get in position to set your offset

Follow the directions on the screen by taking a piece of paper or something similar that is the same thickness as a piece of paper. Press on the ‘Up’ arrow to raise the bed up toward the nozzle of the printer. Slide the piece of paper in between the nozzle and bed and continue pressing the ‘Up” button until you feel resistance on the paper between the Nozzle and the print bed. Note: You still want to be able to slide the piece of paper back and forth but with enough resistance that it is touching both the bed and the nozzle

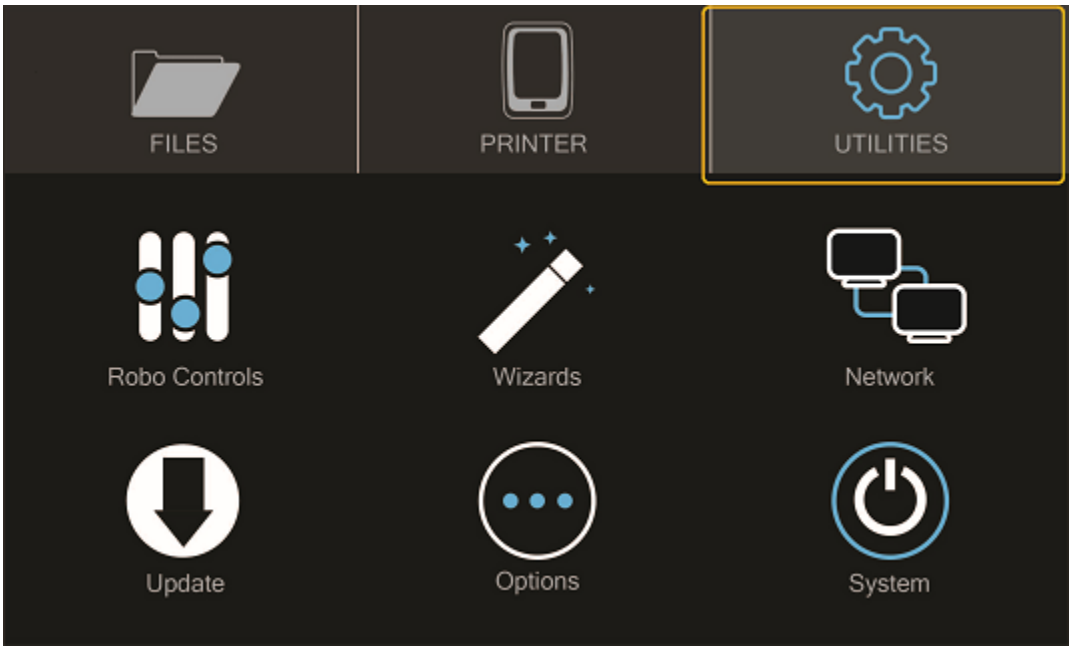
Select ‘Finished”. Your printer will calculate your Z-Offset and then press ‘Finished’ to complete setting your Z-

Offset.

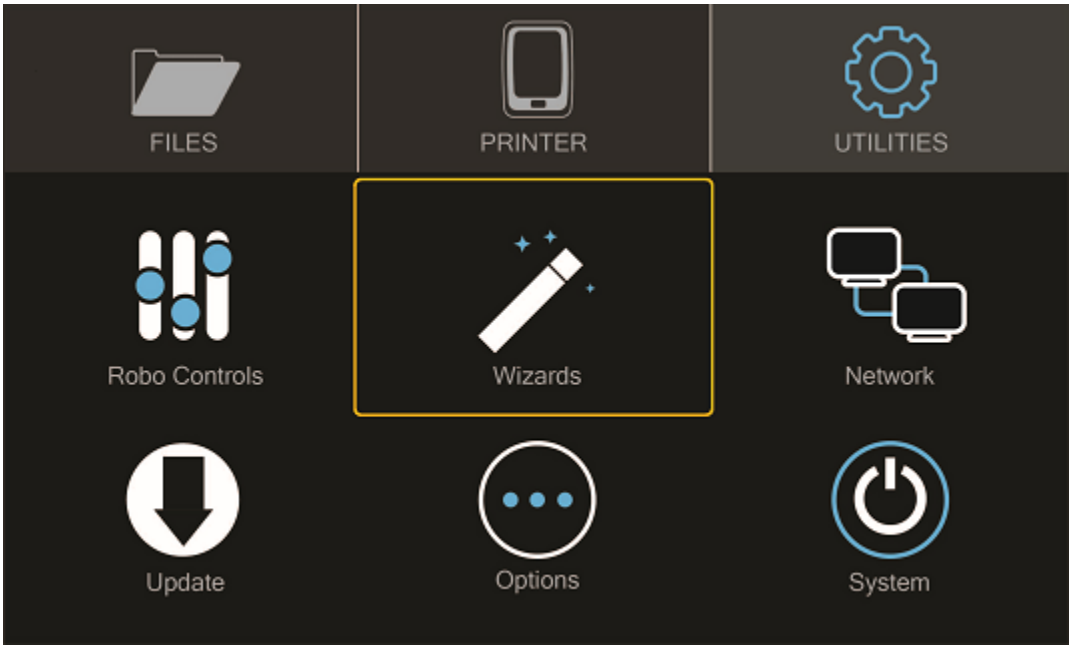
Loading and Unloading Filament

Loading Filament

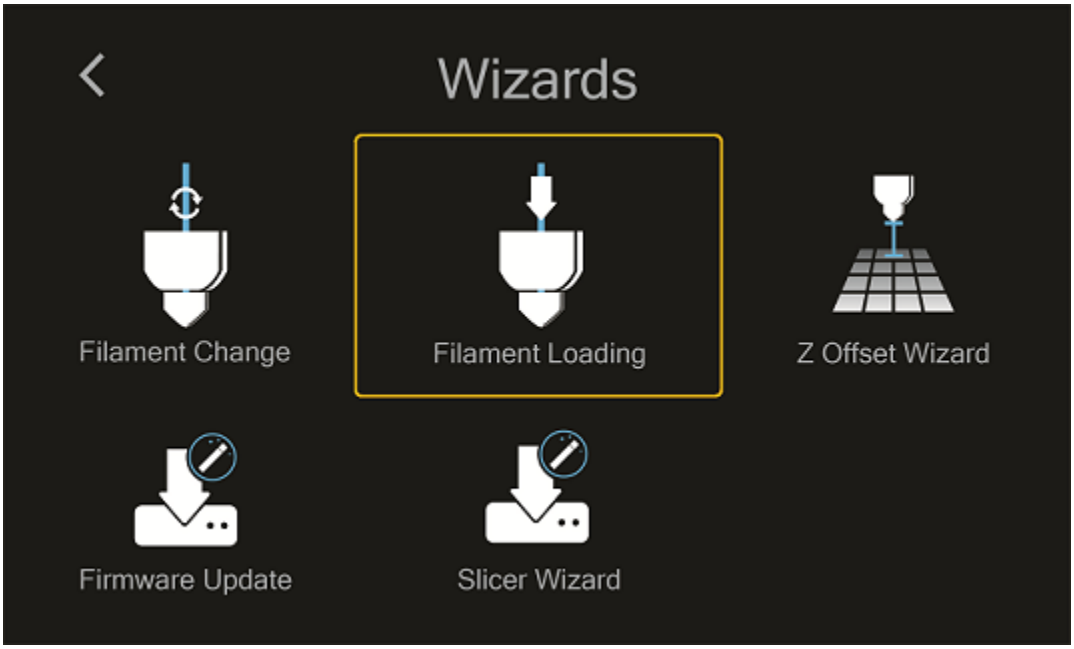
From the home screen select ‘Utilities’



Next, select ‘Wizards’



Select ‘Filament Loading Wizard’



After you printer heats up, ensure you've cut the tip of the filament. Place the filament inside the feed hole, and press 'Next'.

The feeder gear will push your filament down, through the extruder, and out of the nozzle

Once you see filament coming out of the bottom of the nozzle, select 'Next' and 'Finished'

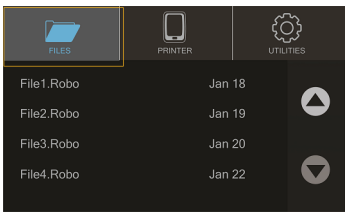
Unloading Filament

1. From the home screen select 'Utilities'
2. Next, select 'Wizards'
3. Select 'Filament Change Wizard'
4. After you printer heats up, the feeder gear will start to retract the filament from the nozzle
5. Once you see filament coming out of the top of the extuder, select 'Next' and 'Finished'

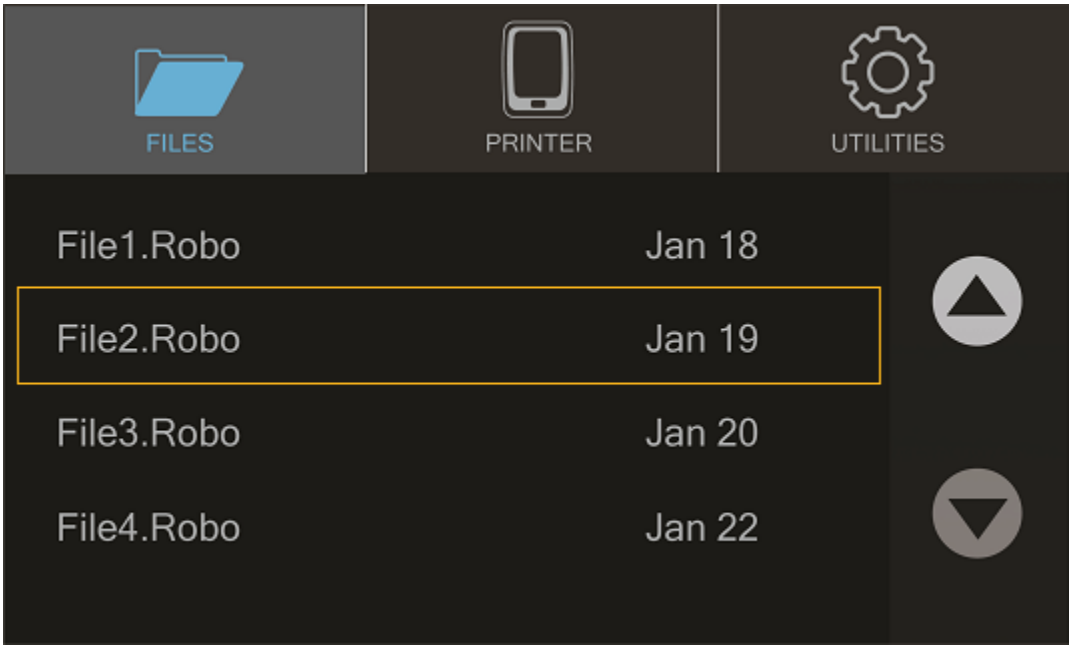
Start a print

Starting a print from your internal storage

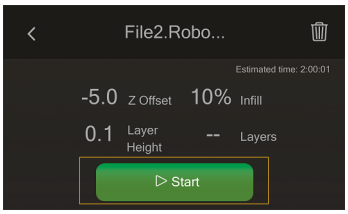
Select 'Files' from the home screen



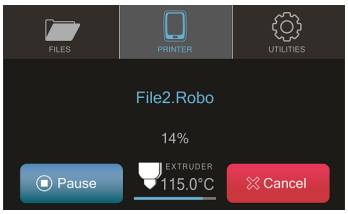
Select a file you would like to print



Now select 'Start' to print - and be sure to wait several second while the Robo C2 prepares to print the file



Note; you can select 'Pause' to pause your print, or you can select 'Cancel' to cancel your print



Note; you can change the nozzle temperature by pressing on the extruder and adding in your desired temperture

Starting a print from a USB flash drive

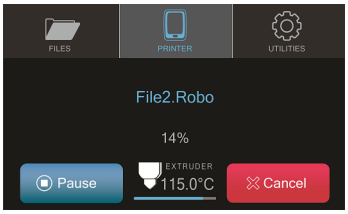
1. Insert the USB flash drive into the usb slot on the front of the printer
2. Select 'Files' from the home screen
3. Select which file you would like to print
4. Next, you can choose whether or not you would like to download the file directly to the printer or print directly from the usb
5. Finally, select 'Start' to start the print

Print Status

There are three ways to check on the status of your print while your Robo C2 is at work printing away

Screen

- While your Robo C2 is printing, you can simply check the status by selecting 'Printer' on the home screen. This will indicate the name of the file printing, what percentage done your print is, along with the nozzle temperature

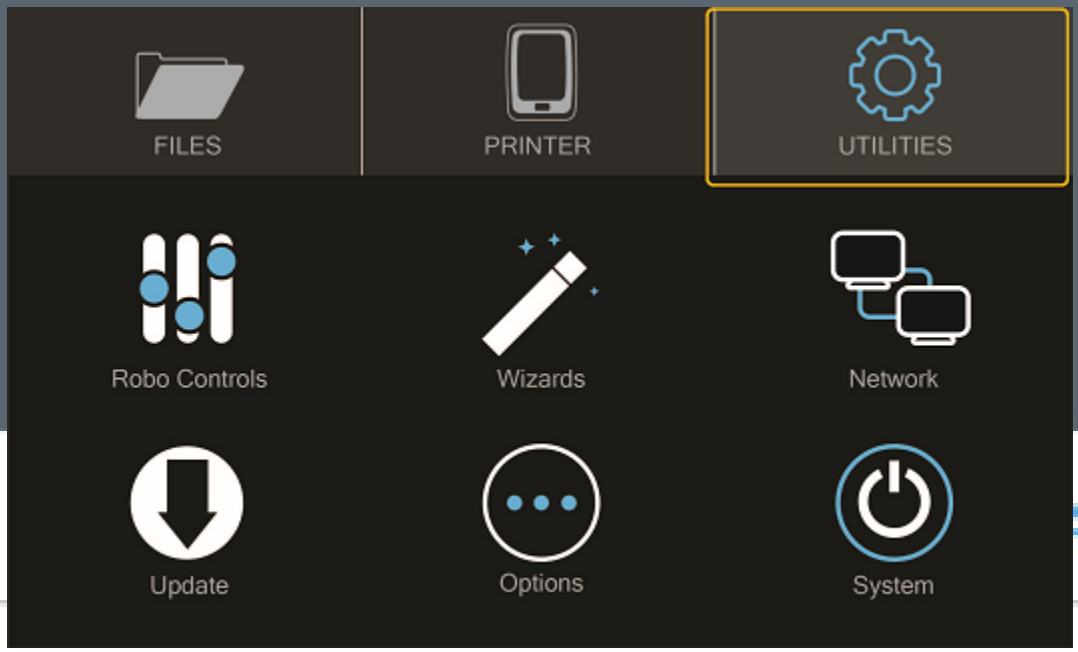


Robo App

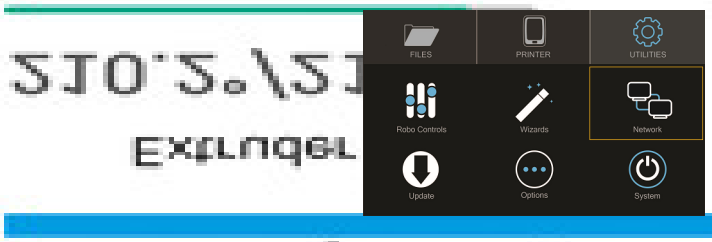
- If you have the Robo App, you can check on the status of your print by selecting the printer under the 'Dashboard' tab This will indicate the name of the file printing, what percentage done your print is, along with the nozzle temperature

Web app

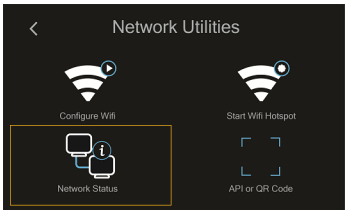
- If you have a web browser on your computer or mobile device, you can check on the status of your print by navigating to its IP address in the navigation bar of the browser
- To see the IP address of your printer, select 'Utilities' from the home screen



- Next select 'Network'



- Then select 'Network Status' and note the IP address of your Robo C2



- Copy that number into your browser navigation bar, and it will bring you to a web app to see all things with your Robo C2

Using print bed adhesion

The Robo C2 has a print bed adhesion tape already installed with your printer. These will usually last about 10-30 prints depen

- In order to make sure you get good adhesion of your print, make sure to wipe the print bed adhesion with isopropyl alcohol before every print.
- If your prints have a hard time sticking to the bed, you can replace the print bed adhesion with the extras that came in your inclusions box or buy directly from www.robo3d.com store

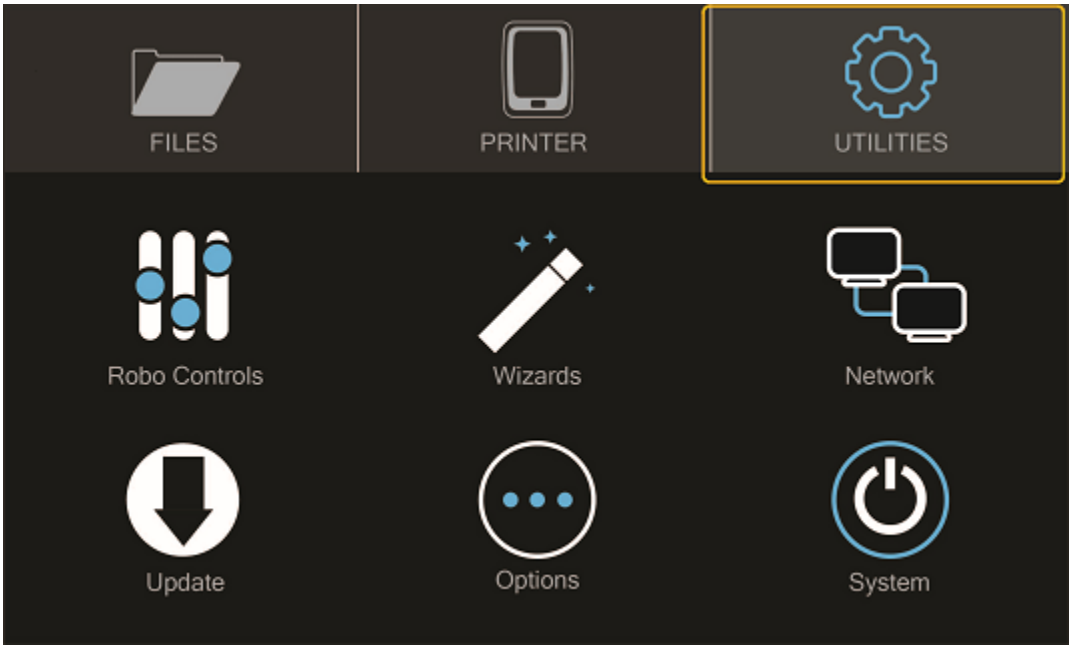
Removing the print

1. When the Print is completed, remove the print plate with the finished print on it from the C2 by lifting the bed up and away from the magnets.
2. Slowly slide the print bed out of the machine and hold with two hands on opposite ends of the print plate.
3. Now, flex the print plate back and forth to create a gap in between the print and the print plate. Move to the opposite corners and repeat twisting until the majority of the print has come loose.
4. Carefully remove the print from the print plate with your hand.

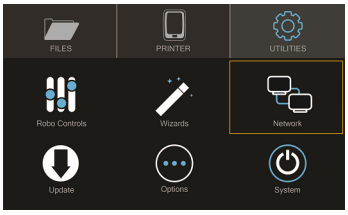
Note: If the print is not coming loose after flexing the bed, use the provided spatula scraper carefully to skim the border of your print. Slowly work your way underneath the print toward the middle until your print comes loose. Do not try and pull the print from the plate directly up from the middle, as it may cause your print to break.

Setting Up Wifi

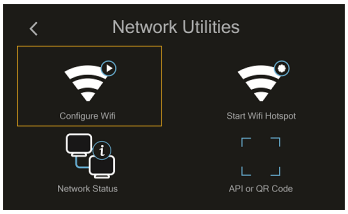
- To begin connecting to your Wi-Fi network, Select 'Utilities' on home screen.



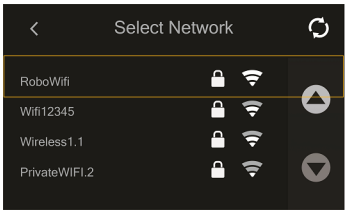
- Select ‘Network’.



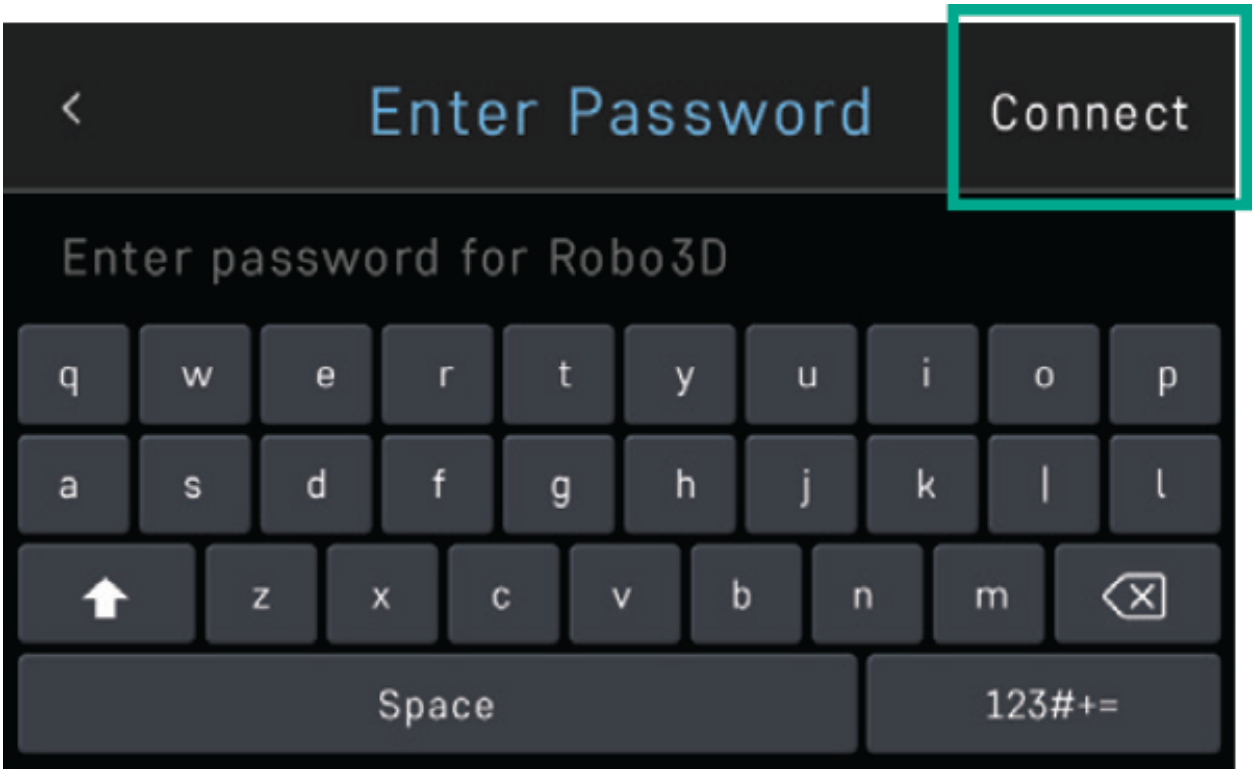
- Select ‘Configure WIFI’.



- Then select your Wi-Fi network and use the on-screen keyboard to enter your password.



- Once you’re done, select CONNECT.



Your printer is capable of starting If no Wi-Fi signals are available for connection, you can use Hotspot Mode to emit a Wi-Fi signal from Robo C2 in order to connect to it wirelessly from your smart device. To access Hotspot Mode, do the following:

Hotspot Mode

1. Select “Utilities” on the home screen of the Robo C2 touch screen
2. Select “Network” from the list
3. Select “Start Hotspot Mode” from the list
4. Your Robo C2 is now casting it’s own wireless network

Downloading the Robo App

From your iOS Device

1. Open the App Store app
2. On the bottom dock, tap on search
3. Enter “Robo App”
4. Tap on the Robo App
5. Tap download on the right of the icon, and rate us 5 stars if you like it!

Connecting your iOS device to your Robo C2

Connecting via a local wifi network

1. Make sure your smart device is connected to the same wifi network as your Robo C2

2. In the ‘dashboard’ screen of the Robo App, tap ‘+Add a Printer’ in the middle of the screen
3. Select ‘Scan for Printer Name/IP’
4. A pop up will appear with all of the printers on the same network as your smart device, go ahead and select which printer you would like to add (your printer has a unique name, example - Curious Tesla, or Brilliant Einstein). (You may look on the back of your printer and find out which name your printer has been givin).
5. Now you will need to scan the QR code on your screen to fully connect the 3d printer to your smart device.
   - On the screen of your machine, select ‘Utilities’
   - Select ‘network’
   - Select ‘QR Code’
6. Tap on ‘Scan Printer Barcode for Key’
7. Point your camera at the barcode and wait for the app to recognize the 3d printer
8. Tap ‘add printer’ at the bottom of the screen
9. Congratulations, you have now added your Robo C2 to your app
10. note that you can add multiple machines to the same app, and control each one independently

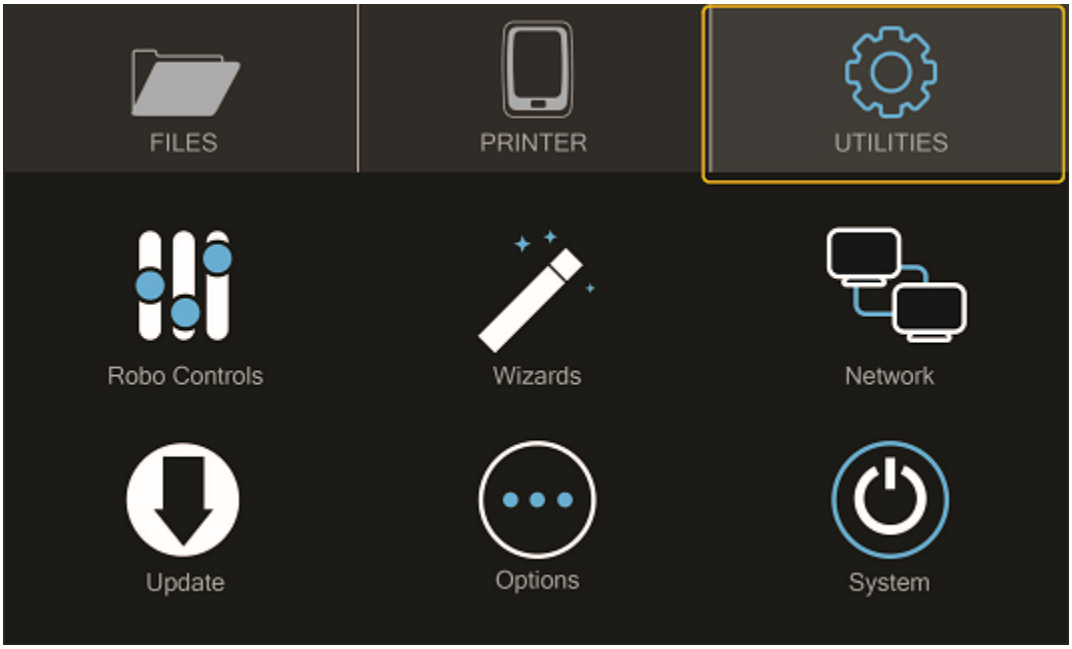
Connecting via Hotspot Mode

1. Make sure that you are connected to the wifi signal that the machine is emitting
2. Follow steps in the previous section to successfully connect your printer to the app

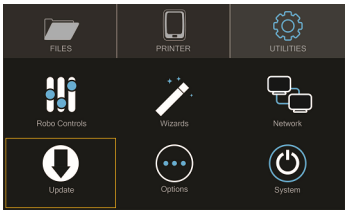
Updating Your Printer

Make sure to update your printer to grab the benefits of all the latest Robo has to offer, as well as making sure your Robo C2 performs to the best of its ability.

- Select “Utilities’ from the main screen



- Select ‘Update’



- Check to see if you have the most up-to-date software. If not, go ahead and update to get the best use from your Robo C2

Software

RoboOS

Cura

To get your 3d prints out looking great, Cura for Robo Desktop Software is the recommended software. This software takes your 3d models, and turns them into a language that the Robo C2 can read, and uses it to product an object

Downloading and Installing Desktop Software

- The Cura for Robo Desktop Software is included in your USB drive that came with your printer, and is also available at www.robo3d.com/software
- Download the latest version of Cura for Robo for your operating system. This software is easily supported by Windows Vista or higher, Mac OSX 10.7 or higher, and Ubuntu 14.04 or higher operating systems. (put logos of operating systems here)
- Open the installer and follow the on screen installation instructions
- Once opened, select Robo C2 3d Printer to get the correct configuration for your machine

Downloading and importing a file into the software

- Open your web browser and go to a 3d file sharing site. We recommend either www.thingiverse.com or www.youmagine.com for getting free, online 3d models.
- Browse around and choose a model you like
- Download the .stl version of the 3d model and save it somewhere you can retrieve it easily on your computer
- In your Cura for Robo Desktop Software, click on the 'Load' button and choose your .stl file you just saved. This will insert your model onto the platform in the software.

Preparing a 3D Model

- Once your 3d model is inserted into the software, go ahead and select the settings you want your 3d model to be prepared
- The 3d model will automatically generate with the setting you have selected
- Press 'save to disk' and the model will automatically save to your USB drive you have inserted, or, if there is no inserted USB drive, save it in a folder of your choice.
- Before taking out your USB drive, make sure to eject it safely

From Model to your printer

- There are two ways to get a file from your computer to you Robo C2 3D printer. Note that a 3d printable file is a .gcode file that you just created from the Cura for Robo desktop software

Printing from USB Drive

- **If you have saved your file to a USB drive, simply put the USB drive into the slot on the front of your machine**
  - Tap on the upper left file icon
  - The printer will automatically search through your USB drive and display all of the 3d printable files
  - Select the file you want to print, and press 'print'

Uploading to cloud storage

- **Once you have your 3d printable file, upload it to your same cloud storage you set up in your Robo App earlier.**
  - In the Robo App, go to your dashboard
  - Tap on the cloud storage icon you saved your file to
  - Once in your cloud storage, find the file you just uploaded, and tap on it. This will bring you to a print page.
  - Select which printer you want to print to and tap 'print'.

Maintenance

#Robo C2 Maintenance

Remember, a well-maintained Robo C2 is a happy one!

Be sure to check for the following before you print:

- Make sure the print bed is free of any/all objects
- Make sure nothing is blocking the extruder head from moving freely around the build area.
- Make sure no objects are below the print bed that could prevent it from freely moving up and down.
- Make sure there are no broken pieces of filament within the extruder.
- Make sure all cords are neatly tucked away to avoid unnecessary accidents while the printer's in operation.
- Make sure all of your software is up to date (on screen prompts will let you know when updates are available, but only if you are connected to a Wi-Fi network).

And to ensure the best 3D printing experience now and in the future, use the following Robo C2 maintenance tips regularly (every 6-12 months, depending on use):

Cleaning the feeder gear

Steps to take to clean your feeder gear

1. Make sure to turn your Robo C2 off, and unplug the power cord from the back of the machine
2. Remove the extruder cap on the top of your extruder assembly

3. Take a waire brush, toothbrush, or something similar, and brush the feed gear to remove debris
4. Rotate the feeder gear by turning the motor shaft by hand and repeat steps until the entire feeder gear is cleaned
5. Place the extruder cap back onto the top of your extruder assembly and plug in Robo C2

Lubricating the axis

There are two types of linear rods, and two types of bearings in Robo C2, and they must be lubricated differently to ensure best prints.

White Lithium Grease

- The rods that carry the extruder head are ball bearings and should be lubed with a white-lithium grease to ensure smooth travel.
- The z-axis lead screw also needs a white lithium grease for lubrication. Dap a small amount onto the rod, and let the printer move up and down from the next print to lubricate itself.

3-in-1 Oil

- The x and y brackets have a smooth bushing inside of them, and need to be lubricated once every 2-4 months. Wipe down the build up that these bearing produce on the rods over time with a cleaning agent. The bearings can be greased with a few drops of 3-in-1 oil, or sewing machine oil to lubricate sufficiently.

Cleaning the print bed surface

- The Robo C2 print bed surface is a sheet of black painters tape. Make sure to clean it with rubbing alcohol to ensure your print sticks to its surface.
- After 15 or 20 prints, you may need to replace this sheet if you see that your prints are not sticking to it. Ensure that the print sheet is laid completely flat on the build platform, and that it is flush and level across the surface.
- When you run out of print surfaces, you can order more at www.robo3d.com or use your own.
- When removing and replacing the entire print bed, double check that its magnets align with the magnets on the platform to ensure it is seated correctly. Build platforms that aren't seated correctly will result in failed prints.

Removing your Hotend Nozzle

Follow these steps to remove your hotend nozzle

1. Make sure to turn your Robo C2 off, and unplug the power cord from the back of the machine
2. Remove the magnetic extruder plate to expose your entire hotend and wires
3. Take the 3mm Allen Key that came in your tool kit and loosen the hex screw that is on the aluminum plate just above your hotend
4. When the hex screw is loose enough, your hotend should be able to fall out of its housing
5. Carefully pull the wires by hand to remove them from their housings
6. Place new hotend in by reversing these steps
7. Plug your Robo C2 back in and you are all set

Troubleshooting

Troubleshooting

Print Not Sticking to Bed

If you are experiencing problems with the plastic not adhering to your print bed, there are a few things that can be done;

1. Update

- Make sure to update your printer to the latest version of RoboOS. This will ensure that you have the latest version of the firmware that is flashed to your controller board, and have the most up-to-date and tested version of build plate leveling.

2. Re-run the z-offset wizard

- Re-running the z-offset wizard will make sure that your bed is properly leveled. To do this, on the menu screen go to Utilities> Wizards>Z-offset Wizard.

3. Replace the build plate adhesion

- After some time, the build plate adhesion can become unsticky and plastic will no longer be able to stick to it. Replace this with the black tape that came with your printer or order more from our store at www.robo3d.com. Unpeel the used build tape from the build plate, and replace with a new, fresh peice. Remember to re-calibrate your offset by selecting the z-offset qizard from the utilities menu.

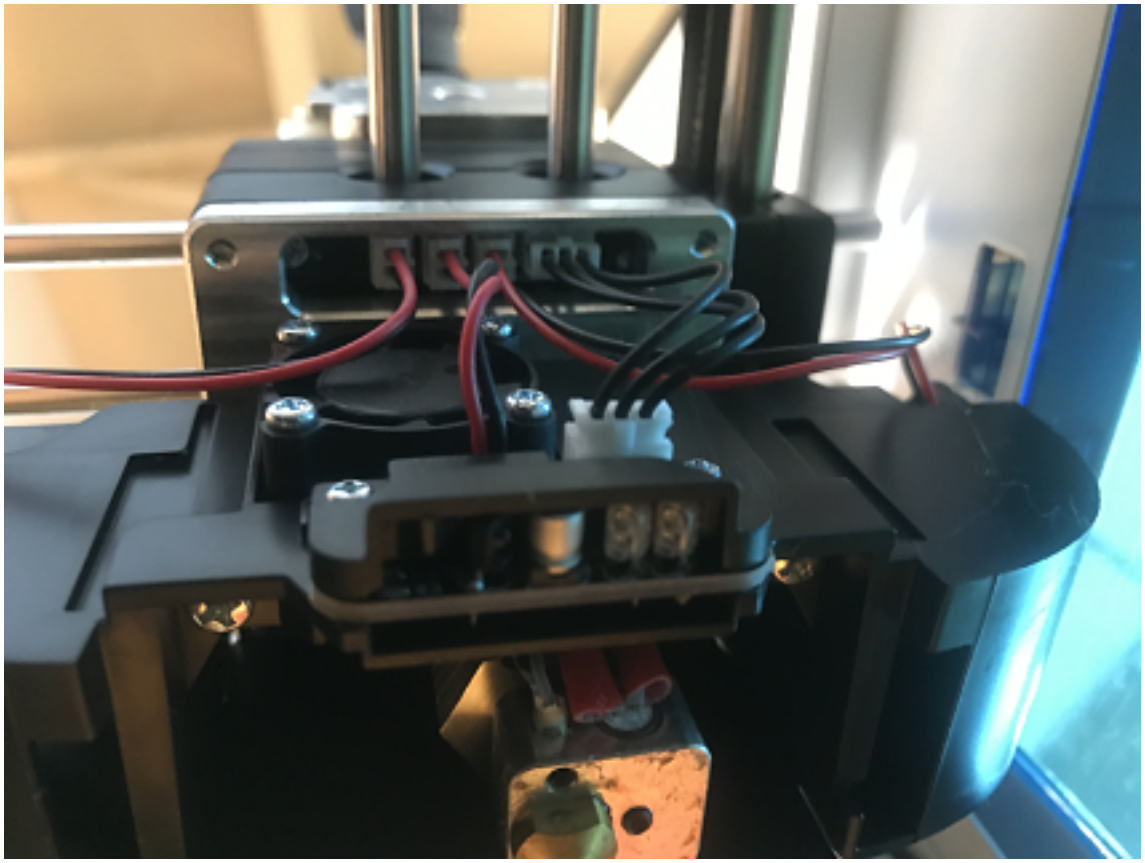
4. Using a raft

- Make sure to use a raft on all of your parts when preparing your print. This will allow a bigger surface area of plastic to stick to the bed, and can compensate for a small amount of unlevel bed.

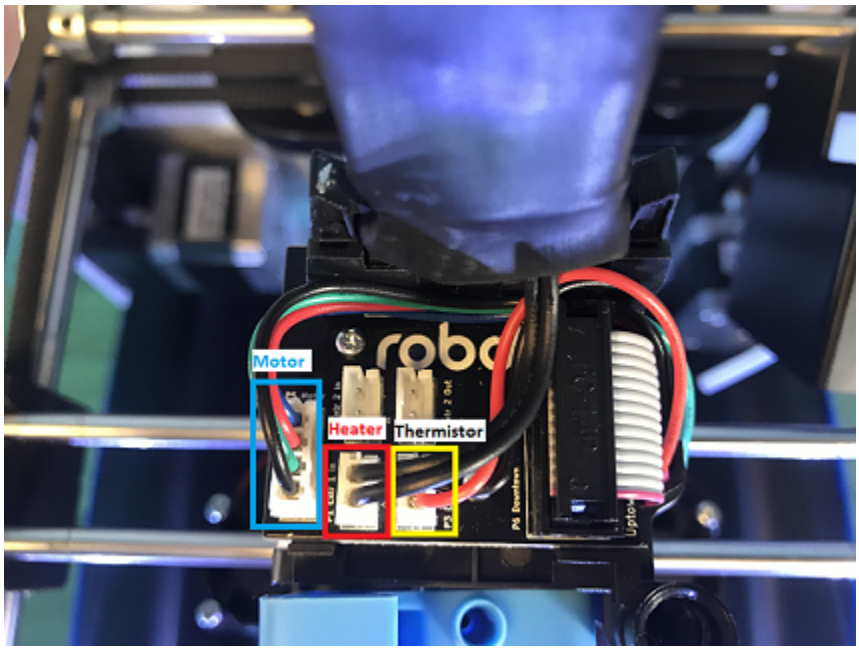
Material Not Extruding

1. Nozzle isnt heating up

- Make sure all of your wiring is plugged in and firmly mounted in its correct brackets.
- Nozzle Wires should be plugged into the correct terminals on the underside of the extruder.

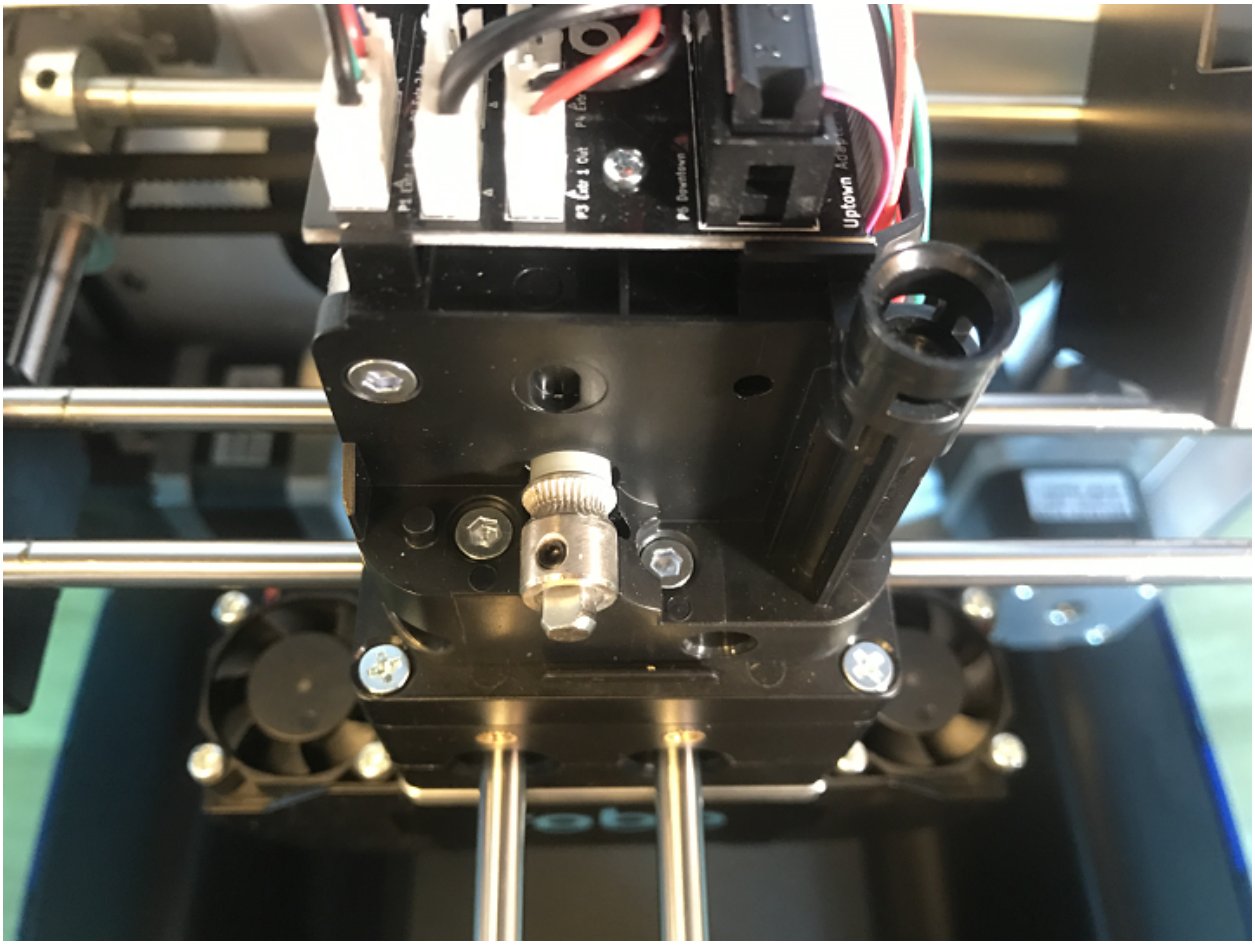


- Wires should be plugged in and seated correctly on the top electronics board at the top of the extruder. Remove the extruder cover then check the wires.



2. Drive Gear is not cleaned

- Turn Off the Printer
- Take off the extruder cover
- Use a toothbrush to clean this drive gear of debris shown in the picture
- Turn the shaft, and continue scrubbing until it is cleaned of debris



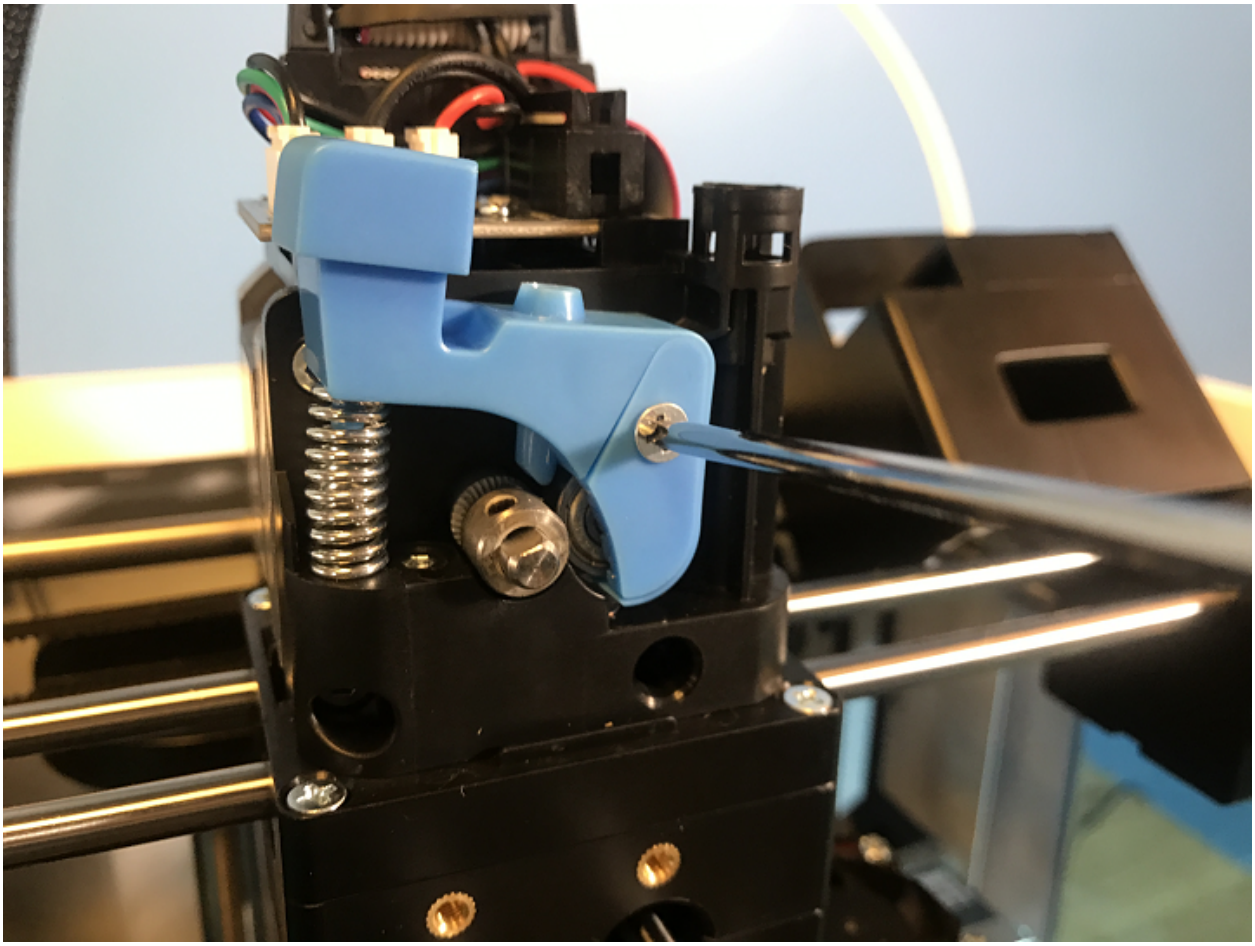
3. Material is stuck around the spool

- Every so often, the material can get stuck on the spool holder or in the spool itself
- If the material is tangled on the spool holder, unwind about 12 inches or 25 cm of filament to loosen it, then reel it back around the spool neatly, trying not to cross over plastic as it spools onto itself
- If the material is tangled within the spool, you will need to unwind some the spool and see where it is crossing over itself. Cut the plastic where you find it is crossing over itself, and feed it back into the machine.

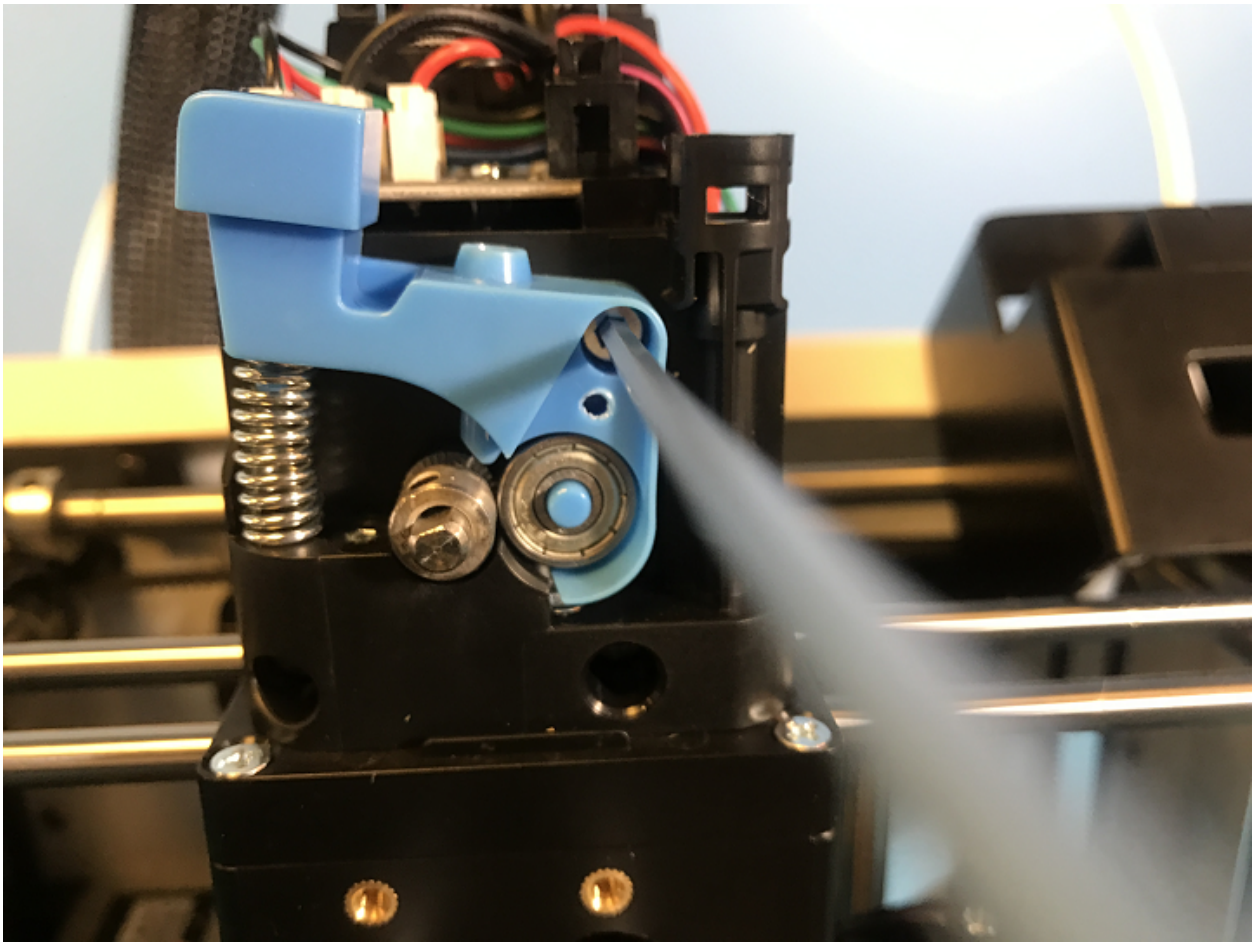
4. Drive Gear is not tightened down

- If your motor shaft is turning, but the drive gear is not, it means you need to tighten down your drive gear.
- To do this, turn off your machine and remove the extruder cover.

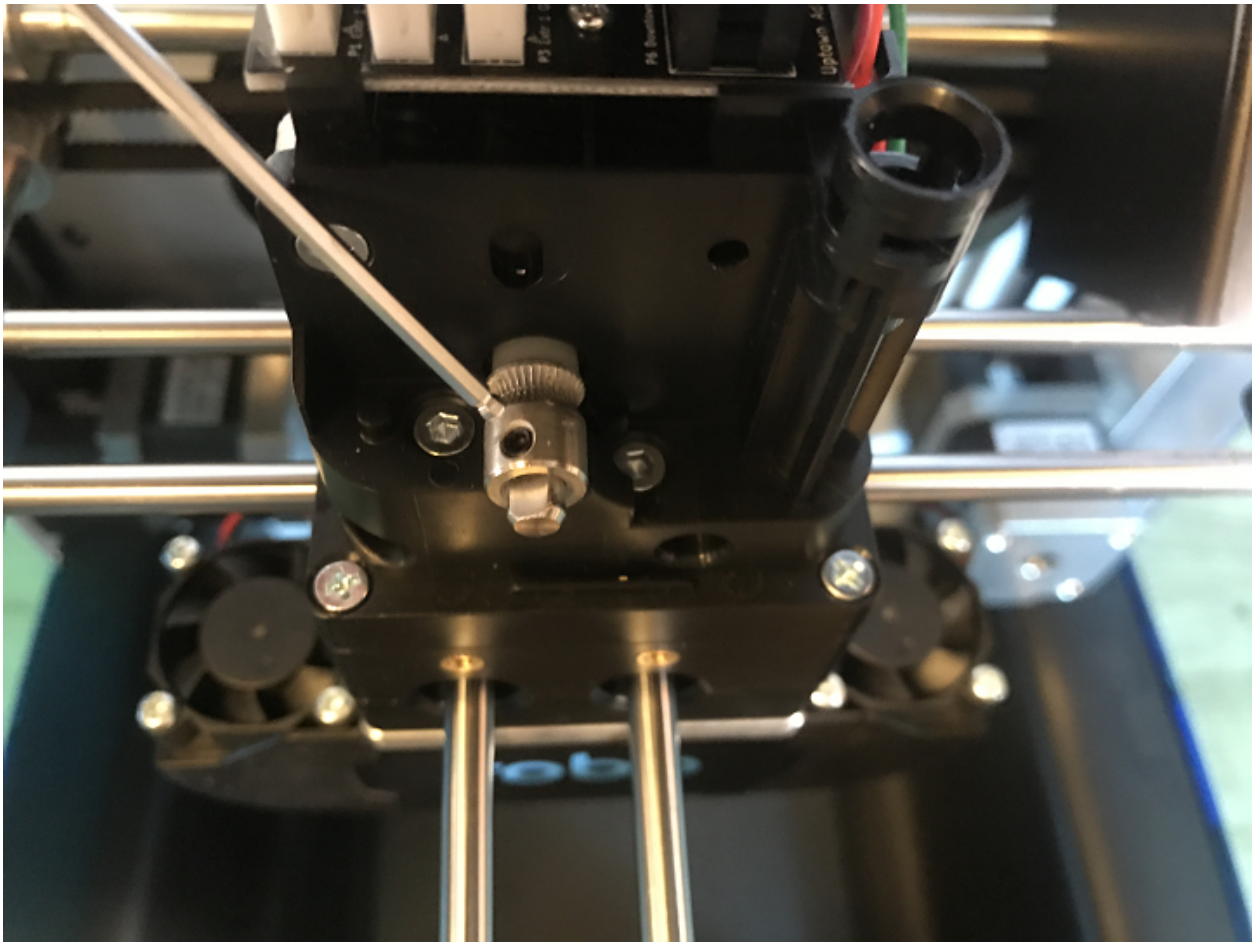
- Next, unscrew the extruder tensioner cover with a screwdriver.



- Take the allen wrench that came in your tool kit, and unscrew the bolt connecting the extruder tensioner to the extruder.



- Once that is off, go ahead and use the smaller allen wrench to screw the drive gear set screw tight. Make sure it is seated all the way up to the spacer.

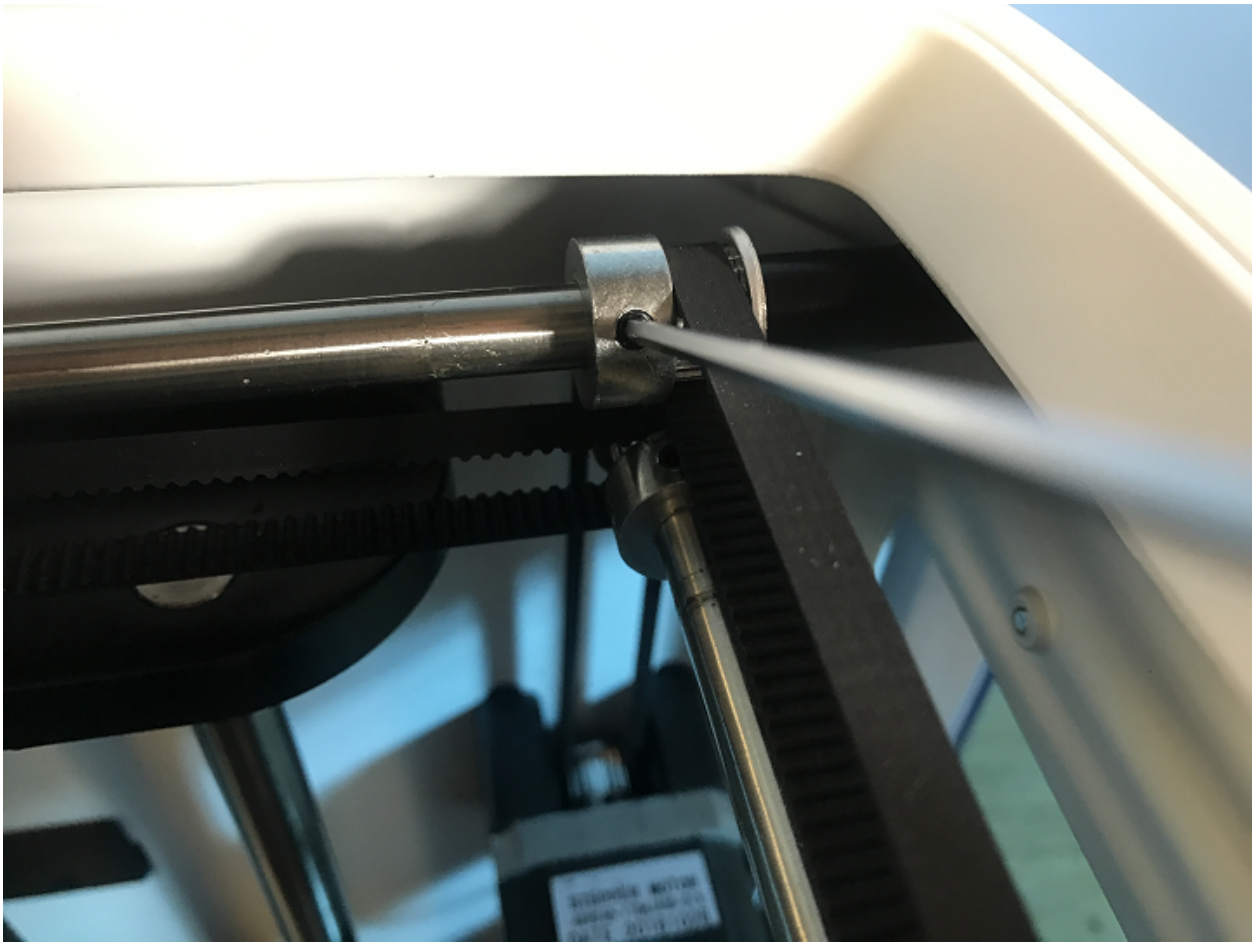


- Now reverse these steps to put it all back together

Shifting Layers/bad print quality

1. Loose Pulleys

- If the pulleys on the X and Y axis come loose, you may need to tighten down the set screws to hold these in place.
- Move the Extruder into the center of the printer, and find the set screws on the pulleys in the corners of the axis. There are a total of 10 pulleys that you must check (2-3 in each corner), and each has 2 set screws to make sure to tighten down.



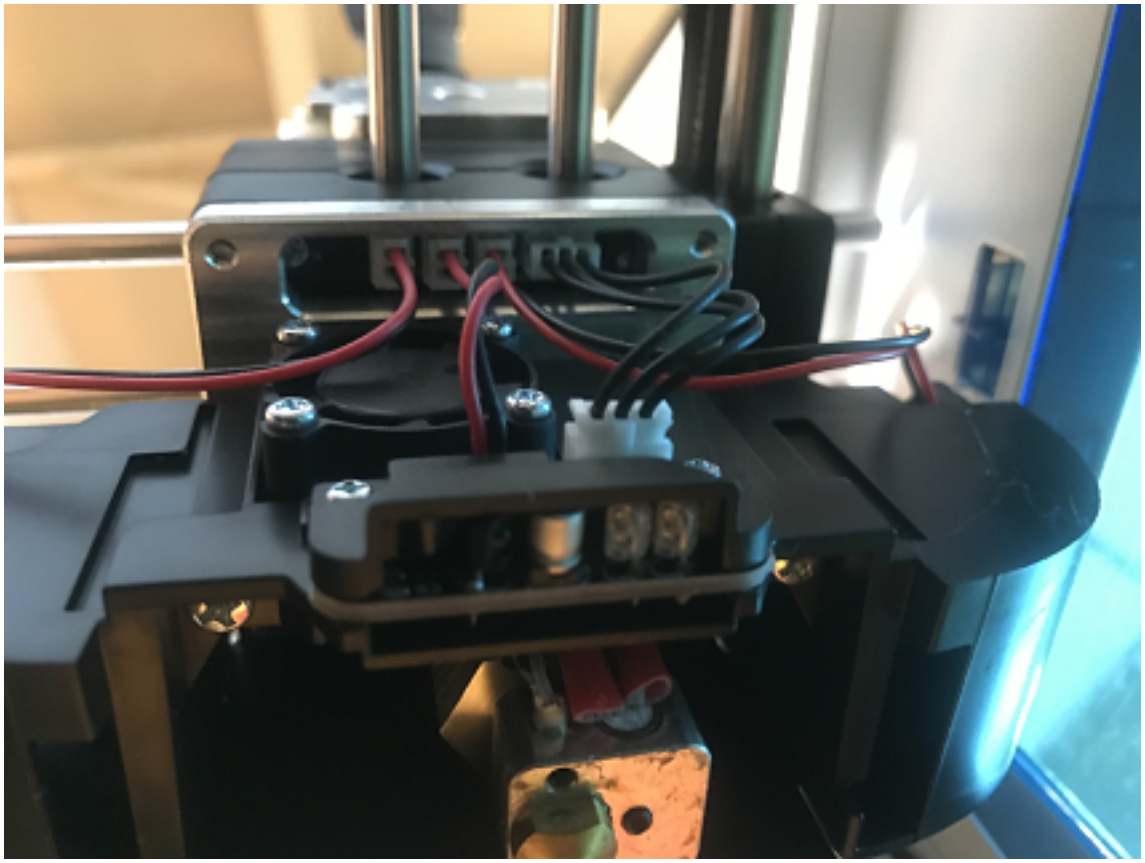
2. Unaligned Axis

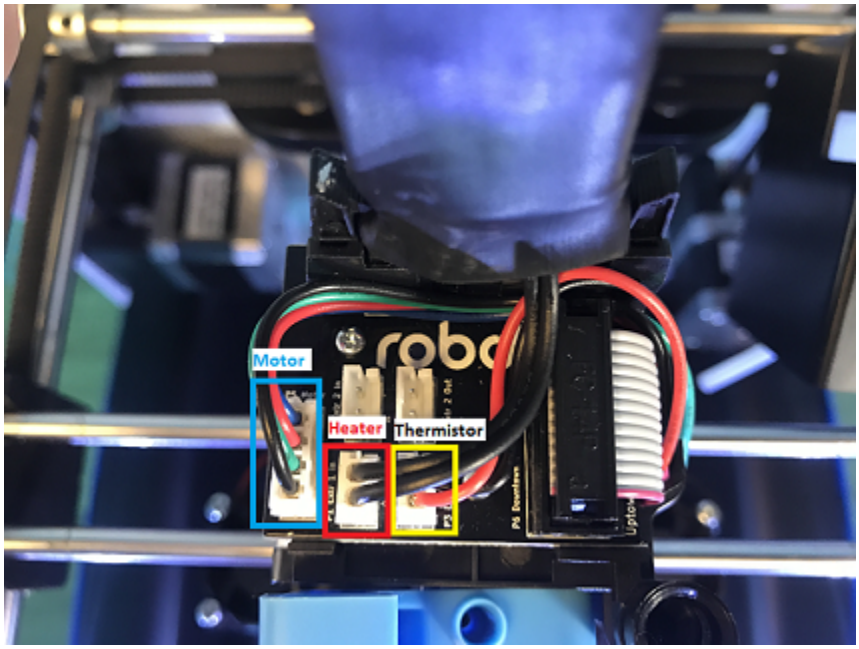
- Re-align your axis to be perpendicular to each other. To do this, use the orange clips that came with your printer.
- Unplug your machine, and move your extruder to the front right corner.
- Using the orange rod stabilizers, attach one at each corner of the gantry, completing a square. This should re-align your brackets and revive your print quality.

Hotend Clogged

1. Not Heating up enough

- Make sure all of your wiring is plugged in and firmly mounted in its correct brackets.
- Nozzle Wires should be plugged into the correct terminals on the underside of the extruder.
- Wires should be plugged in and seated correctly on the top electronics board at the top of the extruder.

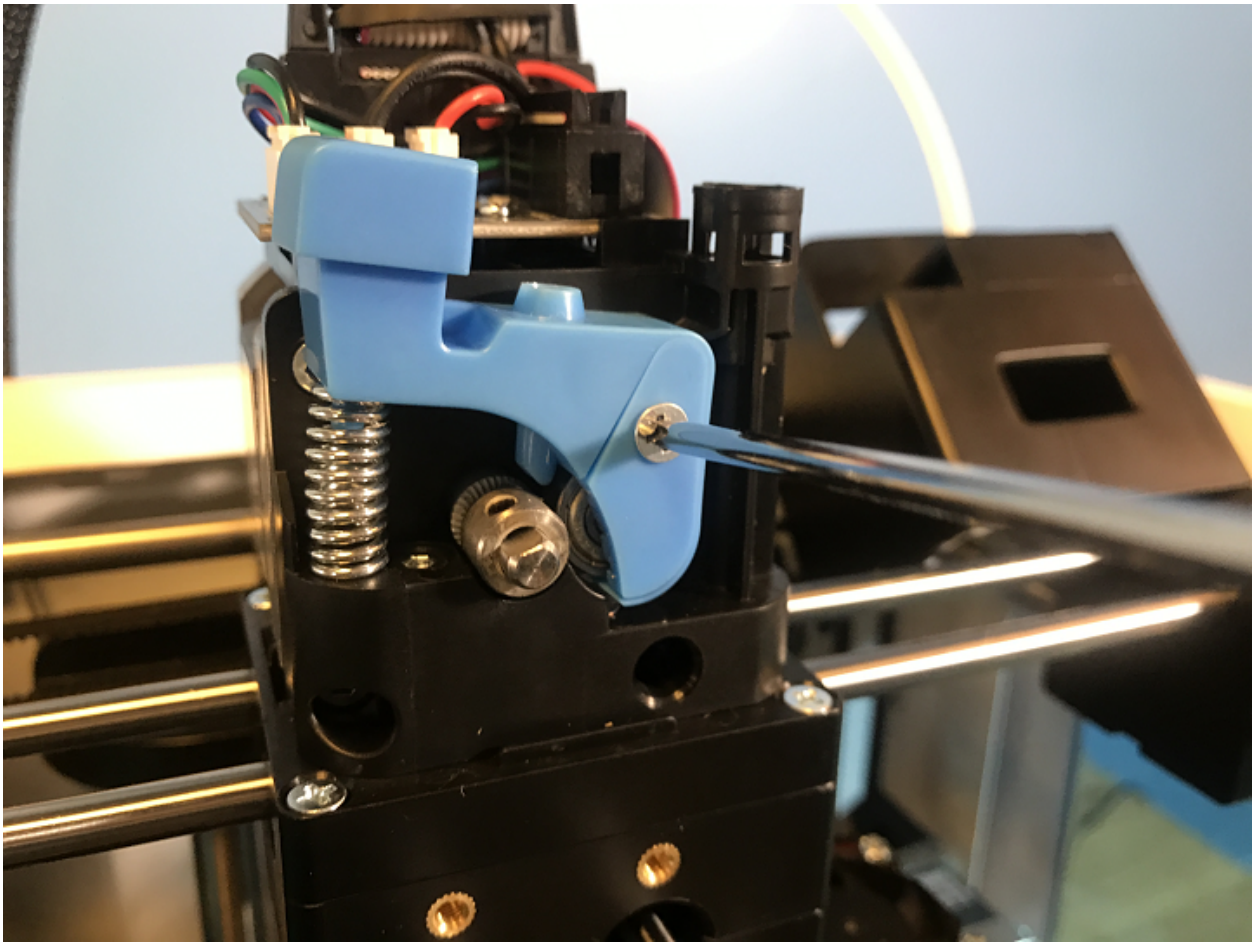




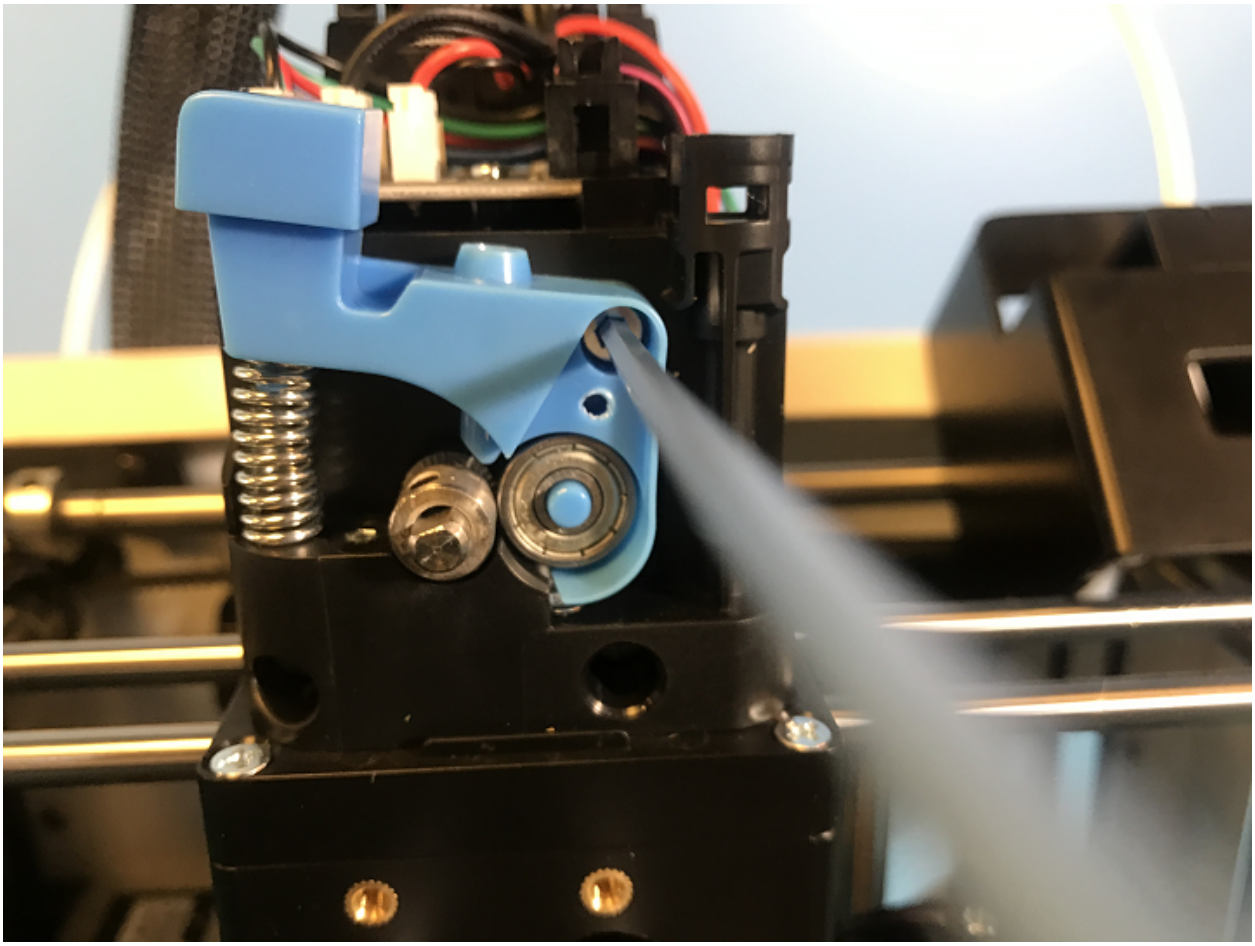
2. Material stuck below the Drive Gear

- If your motor shaft is turning, but the drive gear is not, it means you need to tighten down your drive gear.
- To do this, turn off your machine and remove the extruder cover.

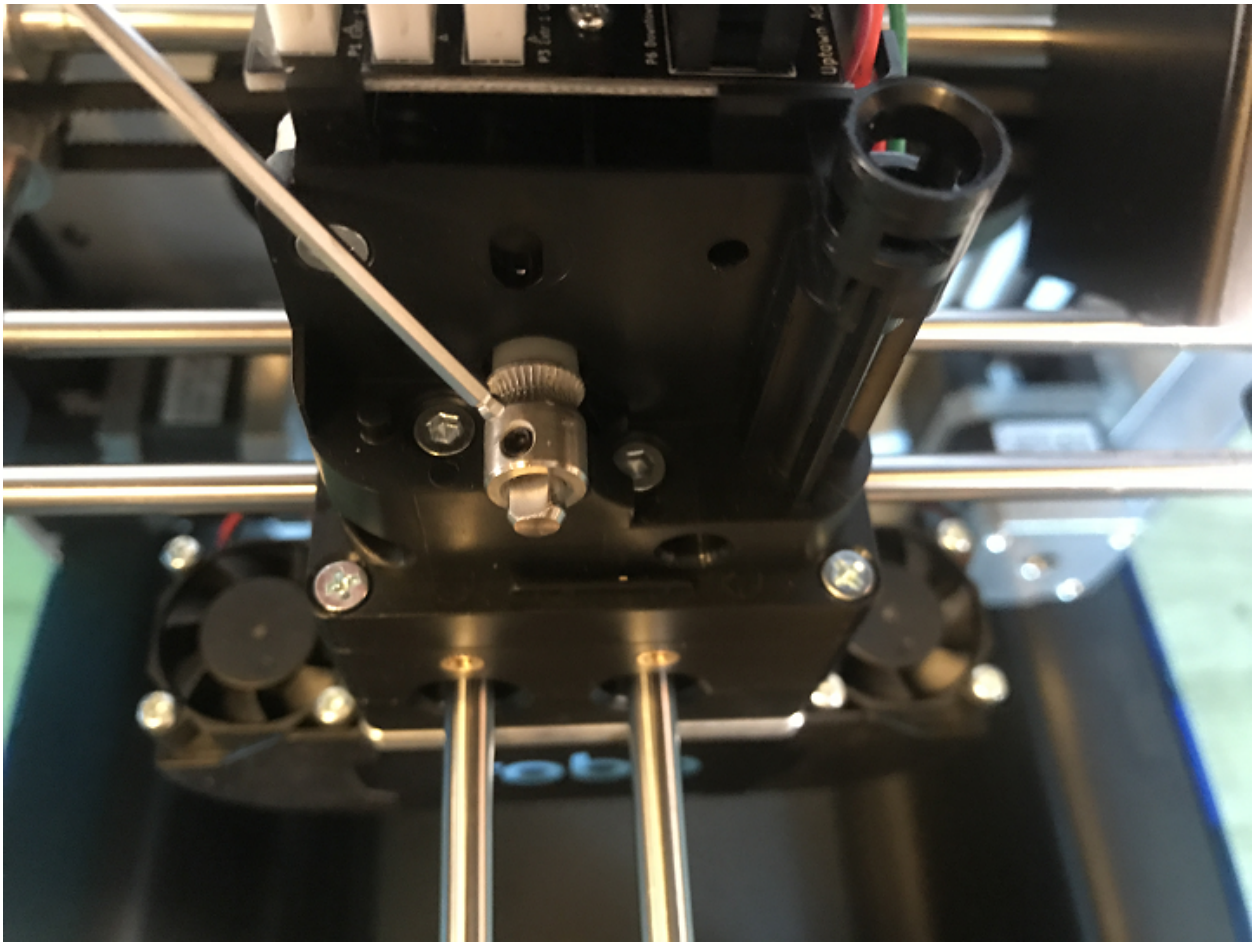
- Next, unscrew the extruder tensioner cover with a screwdriver.



- Take the allen wrench that came in your tool kit, and unscrew the bolt connecting the extruder tensioner to the extruder.



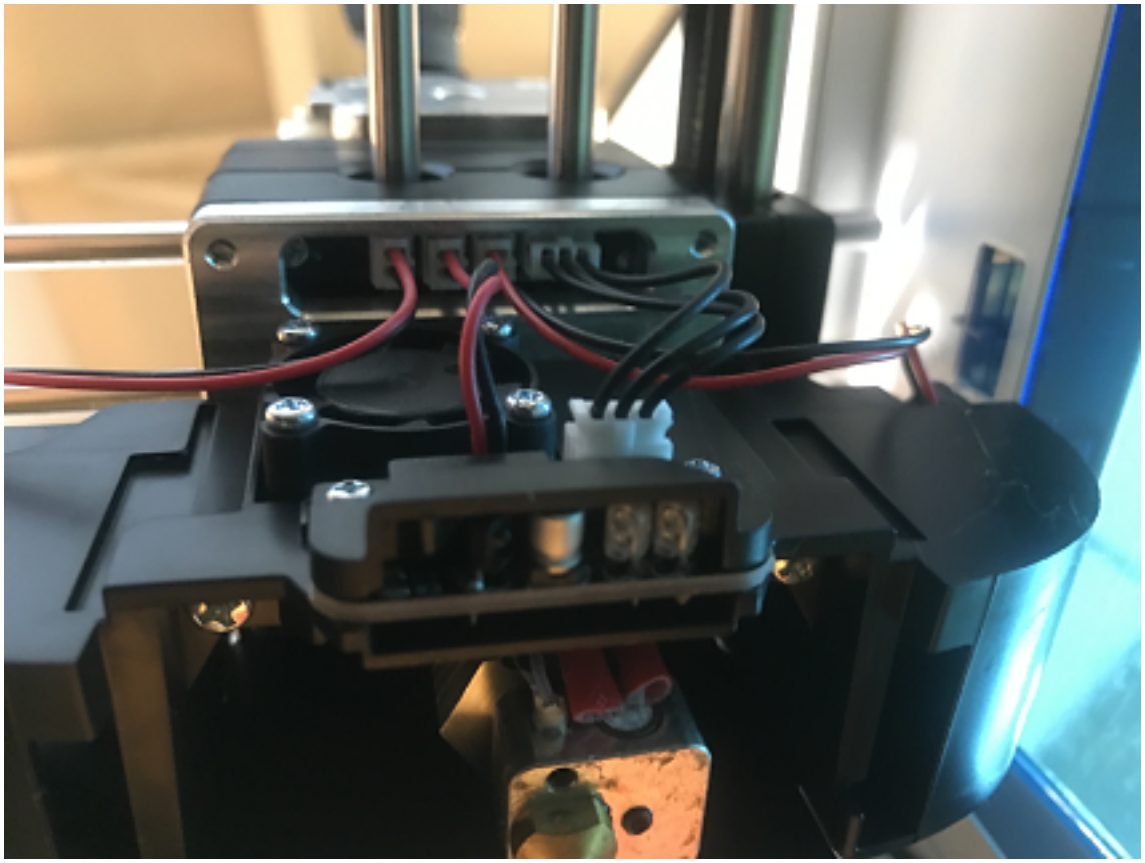
- Once that is off, go ahead and use the smaller allen wrench to unscrew the drive gear set screw loose.



- From here, you can use the tweezers that came in your tool box to grab onto the filament that is stuck. Be sure to heat up the hotend before trying to pull out the filament.

3. Hotend fan is not on

- If your hotend fan is not on (the third fan on the back of the extruder), then it is most likely your hotend isnt being cooled enough and will jam your nozzle. The fan is most likely unplugged.
- Take the red and black fan wires, and look for the terminal plug that is empty on the back underside of the extruder.



Hotend falling out

If you are experiencing your hotend falling out from the extruder, there is a simple fix that will lock your extruder in place

1. The tension screw is not tight enough

- The allen screw located on the front aluminum plate is the tensioner that holds your hotend in place. It is likely that this has come loose. Grab the allen wrench out of the the tool kit that came with your printer.
- Make sure to turn off your printer.
- Loosen your hotend by turning the tensioner screw counterclockwise a few turns.

- Push the hotend as far as it can go up into the seated ring and make sure it is flat against it.
- While you are holding it there, screw the allen screw clockwise until you feel a good amount of resistance and the hotend cannot be pulled out with your hand.

- Turn the printer back on and test. If it still falls out, try tightening the allen screw even more.

Screens Goes White or Doesn't Work

If the screen is not working there is a few steps that need to be taken to solve the issue.

1. Loose Wiring

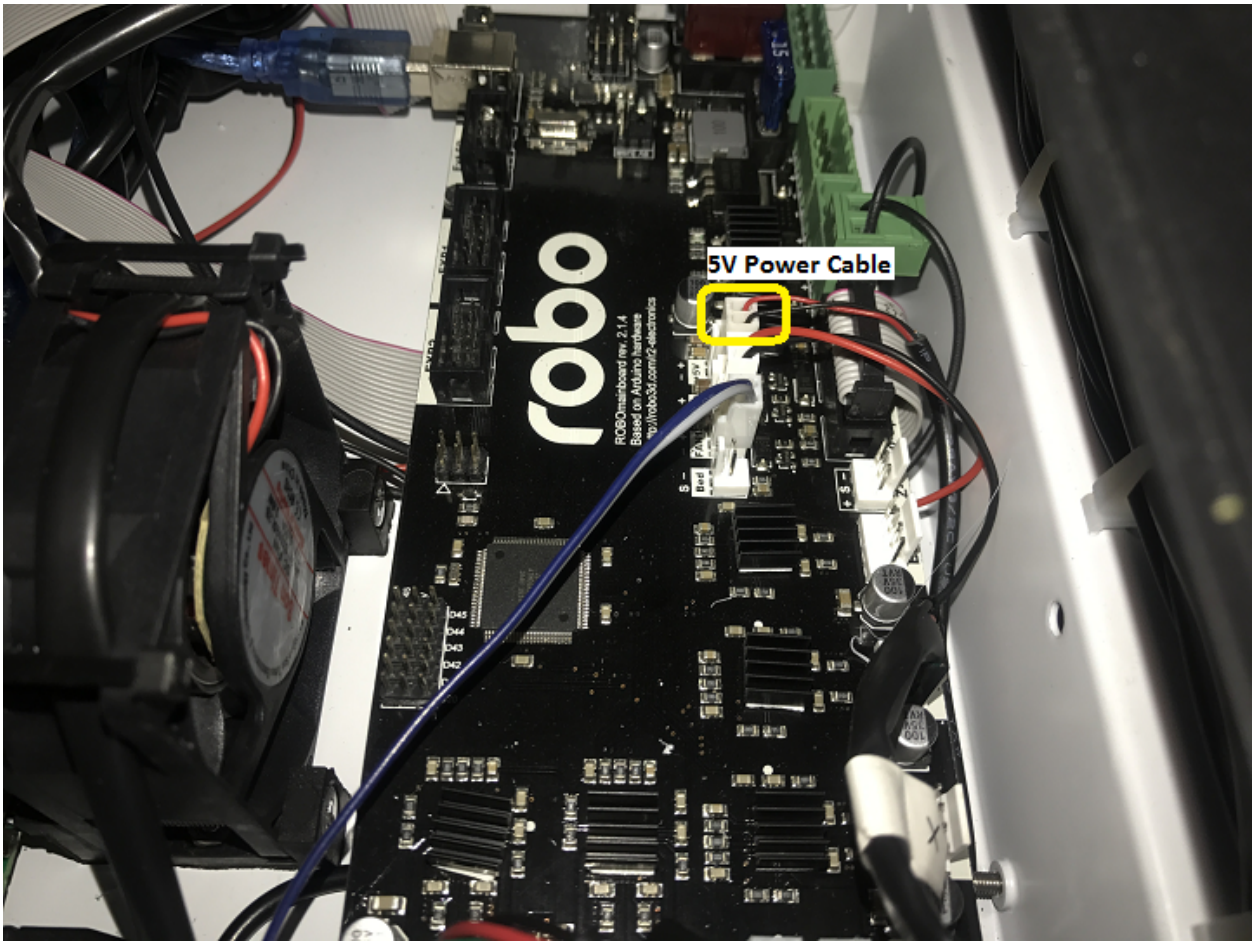
- First, remove the black bezel (which is the black plastic holding the screen) by gently pulling inward from the inside edge of the plastic. From here you will be able to see the electronics of the printer.

- Next, raise your bed by manually turning the long threaded z screw until the bed is mostly all the way up. Now remove the internal lid under the bed that says Robo on it for better access to the electronics.

- Here, you will see a rbbon cable attached that attaches the screen to a green electronics board. On the screen side, detach the screen cable and re-attach. Do the same thing for the green electronics board side.

- Next, find the micro usb cord that is plugged into the bottom right corner of the green electronics board. Unplug this and plug it back in.

- Finally, follow the micro usb cord you just unplugged and follow it to the other end on the black board. It should be plugged in on the black electronics board in a terminal labeled 5V right next to Fan2 plug in. Unplug and replug this back in.



2. If your screen is still broken

- Contact customer support at www.robo3d.com/support

Safety & Compliance

Before you begin printing, take a look at the following safety precautions.

Radio and television interference This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the Federal Communications Commission (FCC) rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reposition or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected. • Consult the dealer or an experienced radio/TV technician for help.

You may also find the following FCC booklet helpful: “How to Identify and Resolve Radio-TV Interference Problems.” This booklet is available from the U.S. Government Printing Office, Washington, D.C. 20402. Changes and modifications not expressly approved by the manufacturer or registrant of this equipment can void your authority to operate this equipment under FCC rules.

The following indicate potential safety hazards that could harm you or others or cause product or property damage.

Warning - High temperatures: Robo C2 generates high temperatures. Always allow Robo C2 to cool down before you reach inside. Warning - Moving parts: Robo C2 includes moving parts that can cause injury. Never reach inside the Robo C2 while it is in operation.

Warning - Risk of electric shock - There is a risk of shock with Robo C2. This product is not user serviceable.

Warning - Do not leaving the printer unattended: Do not leave the Robo C2 unattended during operation.

Caution - Do not using incorrect / unapproved printing materials: Do not print using materials that have not been approved by Robo for use with the Robo C2. We highly recommend only using the following when you print:

PLA filament Wood filament Carbon fiber filament

Caution - Use a proper wall socket location: The wall socket outlet must be located near Robo C2 and must be easily accessible.

Caution - Disconnect from wall socket in case of emergency: In case of emergency disconnect the Robo C2 from the wall socket.

Caution - Operate Robo C2 in a well-ventilated area: Robo C2 melts plastic during printing. Plastic odors are emitted during this operation. Make sure to set up Robo C2 in a well ventilated area.