Using the Polar 3D Printer

Setting up your Polar 3D account
1. Plug in and power up the Polar 3D Printer. The lights will show Polar in blue and 3D in white.


3. Sign up for an account using your MyEGSC email address. **You must use your MyEGSC credentials.** Set up your profile, and click save.

4. Add the EGSC Polar 3D Printer to your account:
   - From the left hand menu, select **printers**.
   - Select **add printer** in the upper right hand corner.
   - Fill in the printer details:
     - Printer Make: **Polar 3D**
     - Serial Number: **P3D00718**
     - Click **find printer**
   - Look at the printer. The Polar 3D logo will light up with 3 different colors. Enter the color pattern to verify you have selected the correct printer.
   - Click **save** when you are done. If the colors are not entered correctly, you will be prompted to try again and a new color pattern will display.

Now that your account is set up and the printer has been added, you are ready to find and print an object.
Finding an Object
There are a few ways to find objects to print. You can join the EGSC Library Club to see some suggestions from the Library staff, or you can conduct your own search.

Join the EGSC Library Club

1. In the upper right hand corner click the drop down arrow with “your name” home club. Then select find more clubs.

2. In the search box type EGSC Library, and click filter.
   
   When you see the library club listed, click on the image.

3. From the club details page, click apply in the upper right hand corner.

4. In the apply to join club pop up, click send.

5. Ask a library staff member to approve your request to join the club. Once approved, click the drop down arrow at “your name” Club and select EGSC Library.
   
   You can now view the objects in the EGSC Library Club collection and choose one to print.

Search for an object

1. From the left hand menu, select objects.

2. Using the drop down menu change current club to public repository.
   
   If the drop down menu does not appear, go to http://cloud.polar3d.com/object.

   Use the search box on the right hand side to look for specific objects, or you can browse what other users have created.

   You can sort the results by changing most popular to most recent or alphabetical.

   To view more results, click the show more button at the bottom of the page on the right side.

   * Tip: The printer creates objects with angles and clear outlines best. The filament and nozzle are not designed to accommodate fine details.
Preparing to Print

Once you have found an object, click on it to view the object details.

1. Click the **collect** button to add this object to your personal collection so you can find it again later.

2. Then click **load to printer**, select the **EGSC 3D** from the drop down menu, and **submit**.

3. When asked if you want to view and manipulate the object on the cloud, click **yes**.

4. Using the object placement settings you can change the scale (size) of your object, rotate the object on the build plate, and position it as needed.

**Tip:** Do not center the object on the build plate.

5. When you are ready to continue, click **save**.
Printing an Object

The next page displays the printer details. You should see your selected object in the Print Job Queue at the bottom of the page.

1. Now you need to prep the build plate (the round mirror).
2. Remove the build plate from the device by gently lifting it upward from the device. Tilt it toward to avoid scraping the mirror on the extruder head (the silver nozzle).
3. Give the build plate a light coating of hair spray to make it tacky.
   - Hold the build plate in one hand extended out arm’s length from your body with the hair spray in the other hand.
   - Apply a thin coating of hair spray to the mirrored surface of the build plate.
4. Mount the build plate by aligning the hole in the bottom center of the plate with the silver screw on the platform.
5. Press down firmly to ensure the plate is mounted. You will know the plate is secure when it does not lift up or wiggle around when light upward pressure is applied.
6. Allow 3-5 minutes for the hairspray to dry.
7. When ready, click start print to begin the printing process.

The printer will prepare itself by warming up. All you have to do now is sit back and watch the printer go to work.

*! Tip: Do not touch the silver extruder. It will be very hot.

If you notice any problems or errors with the print, click pause and alert a Library staff member.

Once your print job is complete the job progress will read 100%, the print nozzle will move up, and the mirror will spin around and present the final project.

1. Allow a minute or two for the object to completely cool off.
2. To remove the object from the build plate gently grab, twist, and turn as needed or try lifting one corner upward. Be careful not to damage your print. If you have trouble retrieving your print, please ask a Library staff member to help.