

## EAGLE PCB Submissions



Read the following instructions carefully and follow them exactly. Failure to do so could result in your PCB being delayed or rejected. Pay attention to the emailing instructions, so that your email is not rejected by my filters.

1. Read this tutorial (<http://www.sparkfun.com/tutorials/115>) for a good primer on how to ready your boards for manufacturing and how to generate Gerber files.
2. Your last step as PCB finalization should be to draw a border around your board and make a note of the X\_Y dimensions for the production submission. This border should be on the silk screen layer. You should also silkscreen your team number on the PCB. If you are submitting more than 1 PCB, indicate on the silkscreen which PCB it is (e.g. 1 of 3).
3. After the layout has been finalized, select the CAM processor button, go to **File > Open > Job** and select *gerb274x.cam*. This file sets the layers and processing parameters for the PCB. Note that each layer is represented by a tab.
4. Click the **File** button in the **Output** section and select the directory where you want the PCB files stored.
5. It is suggested that this be a subdirectory of your layout files for clarity. Check this for all PCB layers.
6. Click the **Process Job** button. This will create the PCB files and place them in the assigned directory.
7. Select the CAM processor button and go to **File > Open > Job** and select *excellon.cam*. This file is used to create the drill file.
8. Click the **File** button in the **Output** section and select the PCB file subdirectory created above.
9. Click the **Process Job** button. The drill file will be created.
10. Go to the PCB directory. The following six files should be present:

\*.**drd** drill file || \*.**cmp** top side copper || \*.**plc** top side silkscreen || \*.**sol** bottom side copper

\*.**stc** top side solder mask || \*.**sts** bottom side solder mask

11. Zip these files.
12. Go to [FreeDFM's website](#) and submit them to FreeDFM for checking.
13. Fix any errors. Showstoppers are errors in your design that will prevent your board from being fabricated correctly.
14. When the report comes back indicating “NO SHOWSTOPPERS” submit **the identical ZIP file** submitted to FreeDFM to Aditya as the PCB submission.
15. This file should be sent to [abalasub@purdue.edu](mailto:abalasub@purdue.edu)

**CC:** ALL team members

**Subject:** [ECE 477 PCB Submission] Team XX PCB Y of Z

**Body:**

- A) Attach the zip file to the email.
- B) In the body of the email give the **dimensions**, in **inches**, of the PCB.
- C) Include the **email and phone number of the primary contact** for any questions that might arise.
- D) Verify that you have submitted the file to FreeDFM and that your file has come back with no showstoppers by typing “No Showstoppers”,
- E) Attach a screen shot of your FreeDFM confirmation.

**(NOTE: ONLY 1 PCB per email. Teams submitting more than 1 PCB need to indicate which PCB is being submitted, as in PCB 2 of 4)**