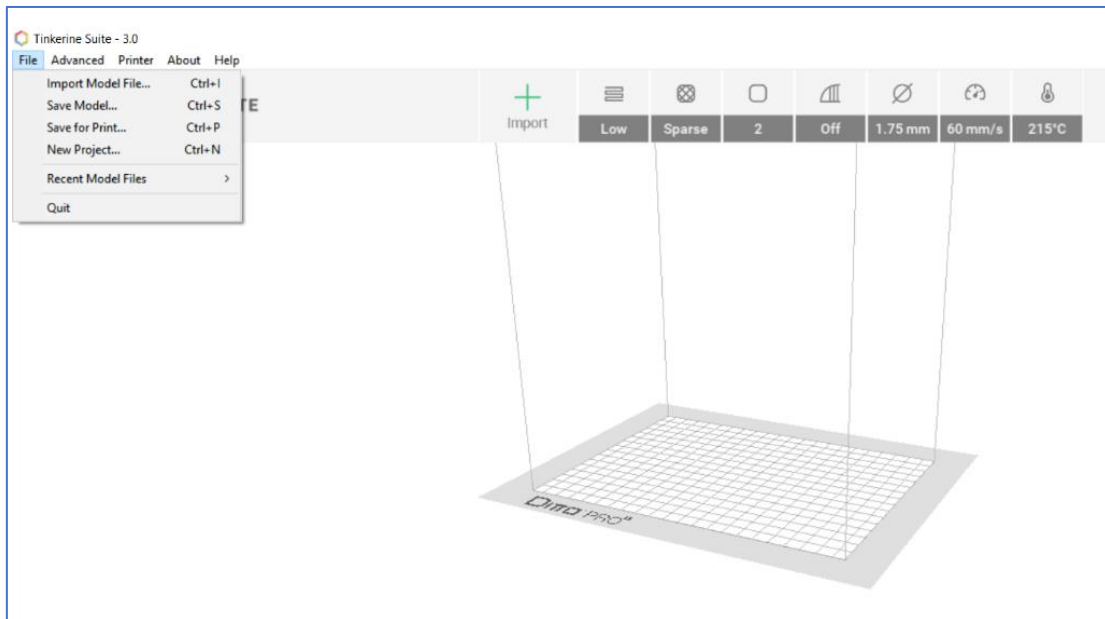


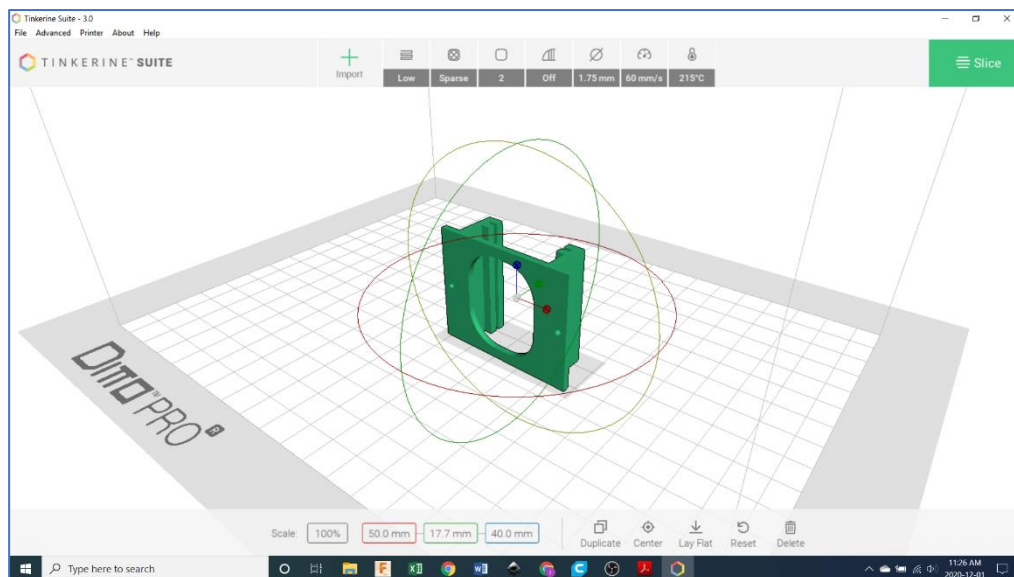
# Lantern Project

## 3D Printing – Steps to Success!

1. Get the model file from the class website. Clicking on the link will download a 'PCB-Holder.zip' file. You will need to 'open' this file and 'copy' the file 'PCB-Holder.stl' and 'paste' this file into your Lantern Project folder (should be in your 'Documents' folder)
2. Open the 'Tinkerine Suite Software' (link on your desktop or search for it) and from the 'File' menu select 'Import Model File'. Your PCB holder model should now be in the build space.



3. Click on the your model and manipulate it using the hoops such that it will not require 'supports' to successfully print. Make sure it is 'laying flat' on the build plate!

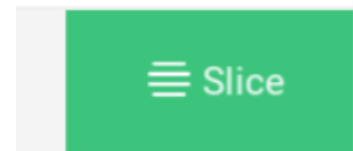


4. Move through the printer setup tabs/buttons at the top of the screen from left to right and ensure the following settings are made:

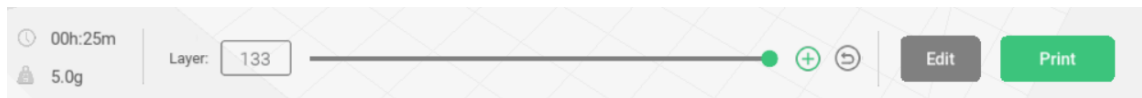


- Resolution = Low
- Fill Density = Sparse
- Wall Thickness = 2 mm
- Supports = Off
- Filament Diameter = 1.75 mm
- Speed = 60 mm/s and speed is 215 deg C

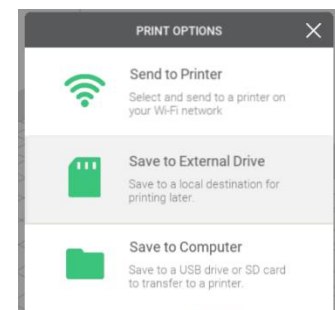
5. Select 'Slice' in the upper right corner of your screen to begin the process of 'slicing' the model into 'layers', each layer will be completed by the printer until all layers have been printed. The higher the 'resolution' the greater the number of layers and the smoother the print, the downside is more layers = more time.



6. Note the slicing information that appears at the bottom of the screen, # of layers, estimated time, weight of filament. If all looks good, press 'Print'



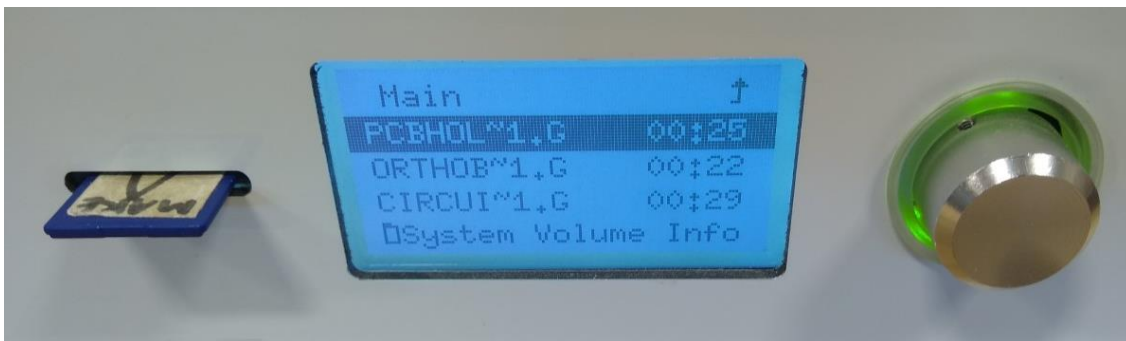
7. You will need to obtain an SD memory card from one of the printers. Insert this into your computer and the 'Save to External Drive' option should become available in the 'Print Options' menu. Select this, then 'Eject' the SD card and take it to your printer.



8. Insert the SD card into the printer (printer should be on, if not switch at back on right), The printer will detect the card and immediately the 'Print' option should be highlighted. If not, rotate the selection knob to highlight the 'Print' option and then press to select.



9. The printable files on the SD card should now be visible on the LCD screen. The most recent file, likely yours, will be first. Rotate the selection knob to highlight the file to be printed and then press to select.



10. The printer should now warm up and begin to print your model. You need to stay and watch it for at least the first layer as this is where the majority of issues will arise. After the first layer is successful, you can leave it to print, but be sure to check in regularly to make sure all is going well.