**3D Printer: Infill Test Guide Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**NOTE:** Those of you have have 3D printers or significant previous experience please watch and listen and allow those who are new to this the opportunity to learn and experience. I would welcome any comments that you might have to improve this lab experience.

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|  | **TASK** | **Notes** | **Check** |
| 1 | **Download InfillTest.stl file**  This is the .stl file you will be working with today. The file is available on the github for the course in the 3DPrinters/stlFiles/test folder. Github will render the file so you can see it. The download button is in the small menu at the top right of the rendered page. Save it someplace on your computer. |  | ❏ |
| 2 | **Modify ‘Layers and Perimeters’ to expose infill**  Since each of the 3 prints you do for this lab will use this same preset it would be wise to save the preset after modifying these characteristics. It is recommended that you print with 0.30 mm layers. |  | ❏ |
| 3 | **Choose Infill Pattern**  Each group will be responsible for generating test prints with 3 of the possible infill patterns. List the patterns your group was assigned here  1\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  2\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  3\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  Each member of the group is responsible for setting up a particular print (in a different location on the build plate), generating the gcode, and printing the test object. List YOUR infill test pattern here.  Mine\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  | ❏ |
| 4 | **Print (Repetition is the pathway to confidence)**  Note if you had any personal discoveries or insights during this cycle of printing.  Insights/Learning: |  | ❏ |
| 5 | **Reflection**  Read Prusa's article about infill patterns and their applications (https://help.prusa3d.com/article/infill-patterns\_177130). Describe how your print experience validates or not the time and material assertions in the Prusa article. This assumes you have noted filament usage and well as print time for each of your prints. In addition discuss the three prints your group did with another group and see if your results are consistent with theirs.  This portion of the lab is submitted as a document to Canvas |  | ❏ |
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