Galton Board Assembly Guide

Printing Galton Board:

1. Download the Galton Board STL file by clicking "Export STL (ASCII)" in the title of this website.
2. Download and open the application “Ultimaker CURA” from the Ultimaker website.
3. When prompted, add the type of printer which will be used making sure to configure settings based on that printer specifically.
4. Also add the material which will be utilized. This can be found on the label of the spool connected to the printer.
5. Import STL file into CURA by hitting the file menu in the top right corner of the application. Then hit Open File(s) and click the STL file from your downloads folder.
6. In CURA, click the rightmost drop down menu to make sure the following settings are enabled:

Profile	Resolution	Support	Adhesion
Balanced	Normal - 0.15mm	Support: Off	Adhesion: On

7. Slice STL into G-Code file by hitting the blue "Slice" button in the bottom right corner making sure to save the file to a removable drive.
8. Insert the drive with that G-Code file into the 3D printer.
9. Follow prompts made by the printer to start print.

Cutting Cover:

10. Download the cover’s SVG file by clicking "Export Cover (SVG)" in the title of the website.
11. Find the SVG file on the computer's downloads folder then manually move it to a removable drive.
12. Using the process specific to the laser cutter which you are using, convert SVG into DXF file with the following settings:

Red Line	Power	Speed	# of Passes
Cut	90%	100mm/min	2

13. Place 6mm clear acrylic into the laser cutter bed then start the laser cutter.
14. Once the laser cutter has finished, open the laser cutter bed.

15. Firmly hold the cut out cover down and try to lift the outside acrylic.
16. If the cover raises with the outside acrylic, run the laser cutter again making sure the cut out is in the exact same place as it was the first time around.
17. Once the laser cutter has fully cut through the acrylic, remove the cover from the laser cutter bed.

Assembling:

18. Slide the cover into the board through the opening at the top.
19. If it doesn't fit perfectly the first time, wiggle it around until it can smoothly slide fully into and out of the board.
20. Take the cover out of the board.
21. Place 150 steel 1.5mm beads into the top chamber of the printed out board.
22. Carefully slide the cover back into the board.
23. Tape or glue cover into place on board.
24. To see distribution, flip the board upright such that the beads fall from the top chamber through the pegs into the cells.
25. To reset, flip the board upside down, so the beads fall from the cells through the pegs back into the top chamber.
26. Play around with it!