



Surface textures present on a 3D printed cube.

Jessi Fortune
Senior
Mechanical Engineering
Dr. James Mann

3D-printers deposit thin lines of plastic in layers in order to build a 3D object from the bottom up. This construction method causes ridges to form between the layers, causing the object to have a naturally rough texture. This project is about reducing this texture as much as possible to achieve a smoother surface by changing the process settings on the 3D-printer. If 3D-printers were able to print with smoother textures, they would be more capable of manufacturing final-products instead of being limited to prototyping like they currently often are. So far, we have studied the effects of altering temperature, plastic flow rate, and layer height.

