3D Printing at Loughboy Library

You can now try free 3D printing in the Library.

- ⇒ Create models for class projects.
- ⇒ Bring your class in for a demo.
- ⇒ Attend a Workshop/Session in the Library
- ⇒ Have fun designing objects at home.
- ⇒ Watch your design printing before your eye in the Library.

Thingiverse

Universe of Things: Digital Designs for Physical Objects

1. Log into www.thingiverse.com & pick a design.
2. Choose the .stl file and download the design to a SD card or USB.
3. Or select your design in the library at the 3D Printer PC at a Library Workshop/Session.

TINKERCAD

Or Create your own Design with Tinkercad

1. Create your own design by logging into www.tinkercad.com to set up an account.
2. Once your design is complete, download the Cura software from https://ultimaker.com/en/products/cura-software or download the .stl file to a .gcode file using CURA at a Library Workshop/Session.
3. Library staff can help you save your finished design to a SD card or USB as a .gcode file.
4. Library staff will print your design. You can wait and watch it appear or come back and collect at a later date.

Contact the library at 056 7794176 or loughboy@kilkennylibrary.ie

Kilkenny County Council Library Service
Seirbhís Leabharlainne Chomhairle Contae Chill Chainnigh

3D Printing in Kilkenny County Library

How does 3D Printing Work?

- ⇒ 3D Printing is know as additive manufacturing.
- ⇒ Users can create a physical three-dimensional solid object of virtually any shape from a digital design file.
- ⇒ The printing process layers successive thin layers of material on top of each other to construct the 3D object. The material can be plastic, rubber or metal.
- ⇒ The virtual design file is made in CAD using a 3D modelling program such as Tinkercad or Solidworks.
- ⇒ The CAD design file is converted to gcode using a slicer software such as CURA, and the gcode file is what the 3D printer understands.
- ⇒ Then a 3D printer is used to create the 3D object.
- ⇒ The 3D Printer extrudes a lightweight plastic filament through the heated nozzle of the Printer, it is heated up to its melting point and then extruded onto a build plate surface, cooled down and hardening upon impact. The process continues, depositing the melted filament layer by layer until a 3-dimensional object is formed.

Online resources

- ⇒ Tinkercad - a free 3D design software (www.tinkercad.com)
- ⇒ Thingiverse - www.thingiverse.com
- ⇒ Myminifactory - www.myminifactory.com
- ⇒ Youimagine - www.youimagine.com
- ⇒ Ultimaker - www.ultimaker.com