

# Ultimaker 3 Safety Guidelines

## **General Safety Information**

The Ultimaker 3 or Ultimaker 3 Extended generates high temperatures and has hot moving parts that can cause injury.

Never reach inside of the Ultimaker 3 or Ultimaker 3 Extended while it is in operation. Always control the printer with the button at the front or the power switch at the back. Allow the Ultimaker 3 or Ultimaker 3 Extended to cool down for 5 minutes before reaching inside.

Do not change or adjust anything on the Ultimaker 3 unless the change is authorized by the manufacturer.

Do not store items in the Ultimaker 3.

The Ultimaker 3 or Ultimaker 3 Extended is not intended for use by persons with reduced physical and/or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning the use of the appliance by a person responsible for their safety.

Children should be under constant supervision when using the printer.

## **Electrical Safety**

Always unplug the printer before doing maintenance or modifications.

## **Mechanical Safety**

The Ultimaker 3 contains moving parts. No damage to the user will be expected from the drive belts. The force of the build plate is big enough to give some damage, so keep hands out of the reach of the build plate during operation.

## **Risk of Burns**

There is a potential risk of burns: the print head can reach temperatures up to 280 °C, while the heated bed can reach temperatures of 100 °C. Do not touch both with your bare hands.

Always allow the printer to cool down for 30 minutes before performing maintenance or modifications.

# Basic Procedures

## Steps to Run 3D Printer:

1. Make a Solidworks CAD of your project
  - SolidWorks provided on MakerSpace website
2. Save CAD file as a .STL
3. Open Cura and load chosen STL file
4. Customize Settings with help of Makerspace employee
5. Export file to thumbdrive
6. Prepare print surface
7. Load file and begin printing
8. Wait while project is printing
9. When printing is finished, remove part
10. Clean print surface for the next person
11. Show off your new 3D printed part

## Printing with Cura via WiFi:

1. Install WiFi (if not done yet) by going to **System > Network > Run WiFi setup** and follow the steps on the display.
2. Enable WiFi in the network menu.
3. In Cura go to **Settings > Printers > Manage printers**.
4. Click on the “**Connect via network**” button.
5. Select your Ultimaker from the list of printers that are shown and click “**Connect**”.
  - Note: Select “Add” in this screen to configure an Ultimaker 3 by IP address manually.
  - Note: Cura will ask if you want to transfer configuration from your Ultimaker 3 to Cura. Select “yes” to automatically transfer them. When selecting “no”, make sure you select the correct settings manually.
  - Note: If you connect to a printer for the first time you need to authorize the connection on the printer.
6. Slice your 3D model in Cura.
7. Press “**Print over network**” to start the print.

## Printing with USB:

1. Place the USB stick in your computer.
2. Slice your 3D model in Cura. Ensure that the print core and material configuration in Cura match the configuration on your Ultimaker 3 or change the configuration on your printer to match the settings in Cura.
3. Save the print file (.gcode) via the “**Save to removable drive**” button to the USB stick.
4. Eject the USB stick in Cura and remove it from your computer.
5. Place the USB stick in the Ultimaker 3 (front side, next to the display).
6. Go to **Print** and select the file you want to print.