

## What is auto bed leveling ?

In open source delta 3D printer like Kossel,Delta.

The level of the bed is controlled by human ,which is not easy to make it horizontal.

That's why people need to use the auto bed leveling function to adjust the level of bed before printing .

In our 3D printer ,the bed is fixed on the bottom ,we do not have this kind of problem, you can print without checking.

## How can I use auto bed leveling ?

It's very easy .

Follow the manual ,assemble the distance sensor.

Send command G28 first ,then send command G29 ,the printer will do a series of actions ,this is really cool ,works like a robot.

Before you use this function at first time ,you must do these things.

- You must calibration the three axes with M666
- Use M119 to check if the distance sensor can work.

Move the printer head down ,when the distance sensor is close to the bed ,the LED light on the tail of the sensor will light up ,then you send command M119 ,the status of endstop Z\_min will be 'triggered', then you check the distance between the nozzle and the bed .

You need to modify the value of distance in Configuration.h in the firmware.

```
#define ENABLE_AUTO_BED_LEVELING // Delete the comment to enable (remove // at the start of the line)

#ifndef ENABLE_AUTO_BED_LEVELING

// these are the positions on the bed to do the probing
#define DELTA_PROBABLE_RADIUS (DELTA_PRINTABLE_RADIUS-50)
#define LEFT_PROBE_BED_POSITION -DELTA_PROBABLE_RADIUS
#define RIGHT_PROBE_BED_POSITION DELTA_PROBABLE_RADIUS
#define BACK_PROBE_BED_POSITION DELTA_PROBABLE_RADIUS
#define FRONT_PROBE_BED_POSITION -DELTA_PROBABLE_RADIUS

// these are the offsets to the probe relative to the extruder tip (Hotend - Probe)
#define X_PROBE_OFFSET_FROM_EXTRUDER +20
#define Y_PROBE_OFFSET_FROM_EXTRUDER -10
#define Z_PROBE_OFFSET_FROM_EXTRUDER -1.2

#define Z_RAISE_BEFORE_HOMING 4 // (in mm) Raise Z before homing (G28) for Probe Clearance.
// Be sure you have this distance over your Z_MAX_POS in case
```

Then upload the firmware again.

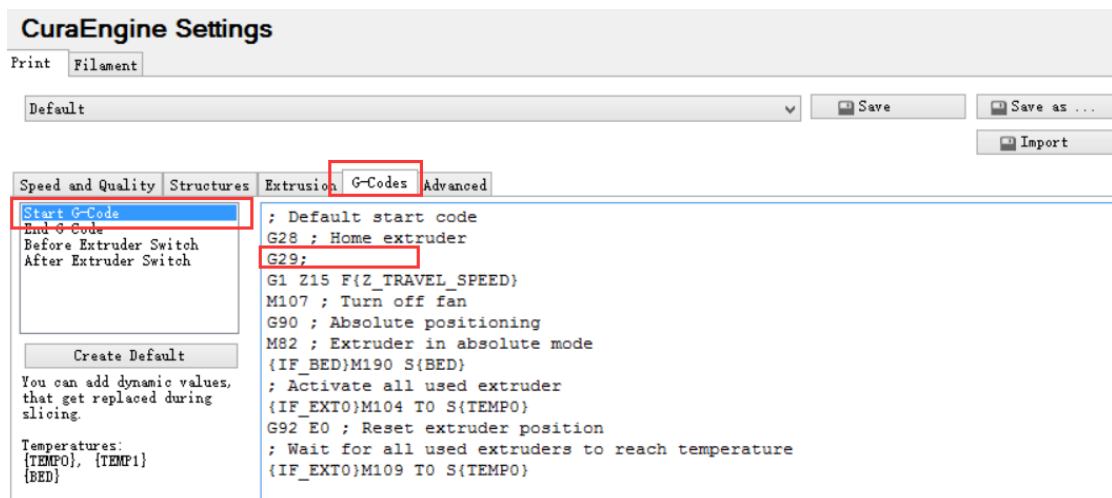
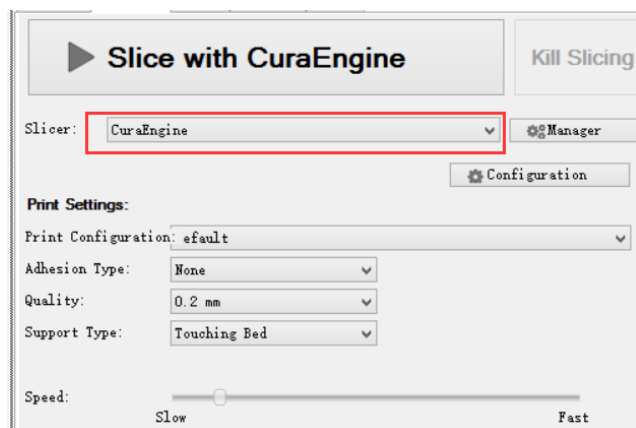
The distance sensor can works in 2-3mm .

If you make the head of the sensor too high ,it will not work ,even when the nozzle crash the bed.

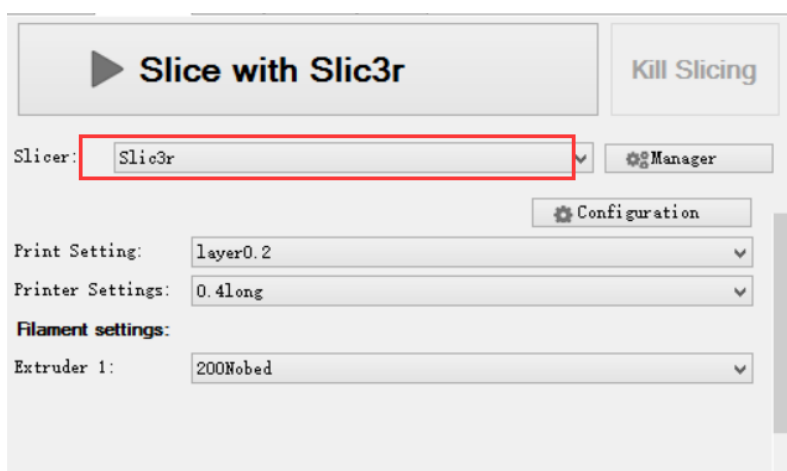
## How can I set G29 command in Slice engine.

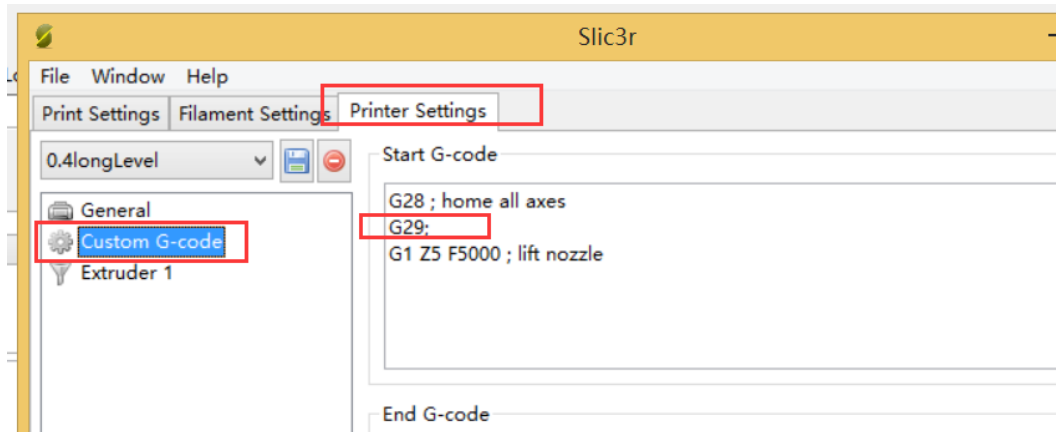
For example .

CuraEngine:



Slic3r:





Any other questions ,pleas contact us.

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Our online store:

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