

Touch Probe Commands Guide

The 3 commands below should each go under a separate macro in the macro tab in Universal G-Code Sender - Classic.

Z Probe

G38.2 Z-25 F100; G10 P0 L20 Z5; G21 G91 G0 Z3

XYZ Probe 1/4 bit

G38.2 Z-25 F100; G91 G0 Z3; G91 G0 X-50; G91 G0 Z-8.2; G38.2 X30 F100; G91 G0 X-3; G91 G0 Z8.2; G91 G0 Y-50; G91 G0 X50; G91 G0 Z-8.2; G38.2 Y30 F100; G91 G0 Y-3; G91 G0 Z8.2; G10 P0 L20 X34.355 Y-17.255 Z8

XYZ Probe 1/8 bit

G38.2 Z-25 F100; G91 G0 Z3; G91 G0 X-50; G91 G0 Z-8.2; G38.2 X30 F100; G91 G0 X-3; G91 G0 Z8.2; G91 G0 Y-50; G91 G0 X50; G91 G0 Z-8.2; G38.2 Y30 F100; G91 G0 Y-3; G91 G0 Z8.2; G10 P0 L20 X35.943 Y-15.667 Z8

Command meanings: (Semi colons separate command sets)

G38.2 Z-25 F100

G38.2 is a probe command which means, seek until the probe circuit is closed (Arduino ground to pin A5). Z-25 means drop the Z axis down a maximum of 25mm (metric in this case). Of course, this travel should be interrupted by probe contacting the plate surface. F100 is the probe travel speed. You may want to slow yours down, but 100 works fine.

G91 G0 Z3

G91 G0 is a rapid move, the Z axis 3mm up or positive direction.

G91 G0 X-50

Then rapid move 50mm left, or negative X direction.

G91 G0 Z-8.2

And drop Z down 8.2mm in preparation for X probing.

G38.2 X25 F100

Now probe for X side of the calibration plate.

G91 G0 X-3

Pull bit away from the cal plate 3mm.

G91 G0 Z8.2

Raise bit up 8.2mm before moving to the front of the plate

G91 G0 Y-50

Move toward front of the plate 50mm.

G91 G0 X50

Move right, in the X positive direction, 50mm.

G91 G0 Z-8.2

Drop the bit back down 8.2mm in preparation for Y probing.

G38.2 Y25 F100

Probe Y axis.

G91 G0 Y-3

Pull forward off work, 3mm

G91 G0 Z8.2

Raise bit 8.2mm.

G10 P0 L20 X? Y? Z?

Store probe offset's in co-ordinates system (Use offset calculator)