BLTouch Classic V1.0 (Classic-C)

<table>
<thead>
<tr>
<th>BLTouch-Smart</th>
<th>G-code</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Available PWM Range</td>
</tr>
<tr>
<td>Push-pin Down</td>
<td>650 us (0° ~ 20°)</td>
</tr>
<tr>
<td>Push-pin Up</td>
<td>1475 us (80° ~ 100°)</td>
</tr>
<tr>
<td>Self-test</td>
<td>1780 us (110° ~ 130°)</td>
</tr>
</tbody>
</table>

**Specification**

- Voltage (Brown-Red wire): 4.8 ~ 5.1 V
- Current: 15 mA
- Maximum (Peak) Current: 300 mA
- Z Probe Output Logic: 4.8 ± 0.5 V
- Color: Semitransparent White
- SMT & Soldering: Lead Free
- Cable Length: 150 ± 5 mm
- Weight: 0.35 oz (10g)

**BLTouch CAD Dimension**

- 3Pin: Brown(±, GND), Red(+ 5V), Orange(control signal)
- 2Pin: Black(−, GND), White(Zmin)

Additional points:
- Additional power supply may be needed in case your board does not supply enough amperage.
- Electronic devices can be damaged or even destroyed if connected to the wrong side polarity.
- If your board applies 3.3V logic, please look at the post below at G+ BLTouch Community: [https://plus.google.com/113792852927481823969/posts/5yFrs25N7JQ](https://plus.google.com/113792852927481823969/posts/5yFrs25N7JQ)
- The action of pulling/pushing very hard on the push-pin can make the BLTouch damaged and less accurate.

**Signal Timing Diagram**

**Correct position of Core**

If your board is 3.3V Logic, please follow below:

If you want to order through PayPal, please send us e-mail including quantity, address, zip code, phone number and name.
Setting (e.g. Marlin firmware)

Please refer to other auto bed leveling setting documents (Youtube or G+, etc.).

Troubleshooting:  https://igg.me/at/BLTouch-C/ts/11834379

<table>
<thead>
<tr>
<th>Marlin RC8BugFix, RC7</th>
<th>Cartesian, Delta configuration.h Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1: Copy the file below and overwrite at the Marlin folder. &lt;= e.g. Delta MarlinWexample_configurationsWdeltaWgenericWConfiguration.h MarlinWexample_configurationsWdeltaWgenericWConfiguration_adv.h</td>
<td></td>
</tr>
<tr>
<td>Step 2: Look at the Configuration.h at your previous firmware and edit Configuration.h at RC8 BugFix Step 3: Check your 3D printer works well. Step 4: Please install your BLTouch. Step 5: Edit Configuration.h like below.</td>
<td></td>
</tr>
</tbody>
</table>

//================================= Endstop Settings ===================================
#define ENDSTOP_INTERRUPTS_FEATURE //option RC8 only

//================================== Z Probe Options===================================
#define BLTOUCH //remove // at the start of the line
#define BLTOUCH_DELAY 375            // RC8BugFix
#define BLTOUCH_HEATERS_OFF         // RC8BugFix
#define Z_MIN_PROBE_OFFSET_FROM_EXTRUDER 0 //Your BLTouch X_PROBE_OFFSET_FROM_EXTRUDER
#define Z_PROBE_OFFSET_FROM_EXTRUDER -1.5 //Your BLTouch Z_PROBE_OFFSET_FROM_EXTRUDER
//define Z_MIN_PROBE_ENDSTOP //add // at the start of the line
#define Z_MIN_PROBE_USES_Z_MIN_ENDSTOP_PIN //remove // at the start of the line

//================================ Bed Auto Leveling===================================
// Choose a line of below three lines and remove // at the start of the line
#define AUTO_BED_LEVELING_3POINT
#define AUTO_BED_LEVELING_LINEAR
#define AUTO_BED_LEVELING_BILINEAR


Previous Versions before RC7

Before installing BLTouch, please setup your configuration.h and check if it works well with your 3D printer.

//================================ Mechanical Settings =================================
const bool Z_MIN_ENDSTOP_INVERTING = false;

//================================ Z Probe Options====================================
#define Z_MIN_PROBE_OFFSET_FROM_EXTRUDER 20 //Your BLTouch X_PROBE_OFFSET_FROM_EXTRUDER
#define Z_PROBE_OFFSET_FROM_EXTRUDER -20  //Your BLTouch Y_PROBE_OFFSET_FROM_EXTRUDER
#define Z_SAFE_HOMING //remove // at the start of the line ←option

//================================ R/C SERVO support ================================
#define NUM_SERVOS 3 //remove // at the start of the line
#define Z_ENDSTOP_SERVO_NR 0 //remove // at the start of the line
#define SERVO_ENDSTOP_ANGLES {{0,0}, {0,0}, {10,90}}, 10=deploy, 90=retract

//Don't remove // at the start of the line

If you want more additional information about the other versions, please visit our website, www.antclabs.com