

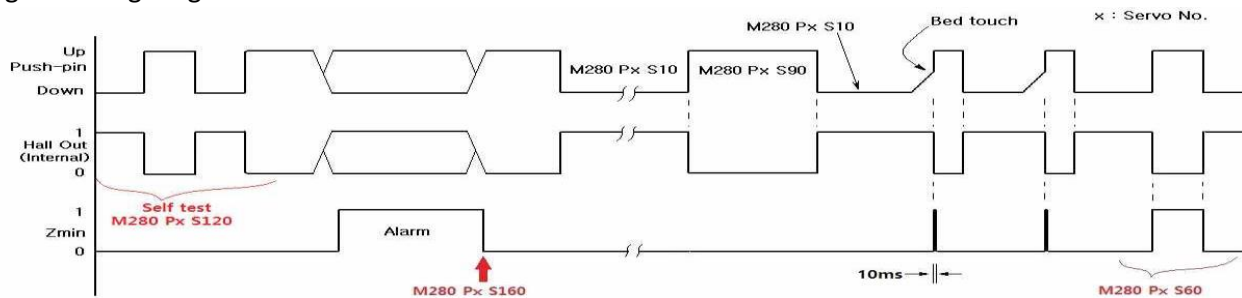
BLTouch : Auto Bed Leveling Sensor for 3D Printers

BLTouch Classic V1.0 (Classic-C) x : Servo Pin or No.				
BLTouch-Smart	G-code			
	Available PWM Range	Marlin Servo PWM	Repetier Servo PWM	Smoothieware
Push-pin Down 650 us (10°)	650 us (0° ~ 20°)	M280 Px S10	M340 Px S650 (Probe start script)	M280 S3.3
Push-pin Up 1475 us (90°)	1475 us (80° ~ 100°)	M280 Px S90	M340 Px S1475 (Probe finished script)	M280 S7.0
Self-test 1780 us (120°)	1780 us (110° ~ 130°)	M280 Px S120	M340 Px S1780	M280 S8.4
Alarm Release & Push-pin UP 2190 us (160°)	2190 us (150° ~ 180°)	M280 Px S160	M340 Px S2190	M280 S10.6

Specification		BLTouch CAD Dimension
Voltage(Brown-Red wire)	4.8 ~ 5.1 V	
Current	15mA	
Maximum(Peak) Current	300mA	
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)	
Wiring	3Pin : Brown(-, GND) Red(+ 5V) Orange(control signal) 2Pin : Black(-, GND) White(Zmin)	

- ※ Additional power supply can be needed in case which your board does not supply enough amperage.
- ※ Electronic devices can be damaged or even destroyed if connected to the wrong side polarity.
[wrong terminal connect to 5V(+) and GND(-)]
- ※ If your board apply 3.3V logic, please look at the post below at G+ BLTouch Community.
<https://plus.google.com/113792662927481823969/posts/5yflRs2N7JQ>
- ※ The action as pulling/pushing hard 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 following below

www.antclabs.com www.bltouch.com PayPal Account & Email : antclabs@gmail.com

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>

Marlin RC8BugFix, RC7 Cartesian, Delta configuration.h Setting
<p>Step 1 : Copy the file below and overwrite at the Marlin folder. <== e.g. Delta MarlinWexample_configurationsWdeltaWgenericWConfiguration.h MarlinWexample_configurationsWdeltaWgenericWConfiguration_adv.h</p> <p>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.</p> <p>Step 4 : Please install your BLTouch.</p> <p>Step 5 : Edit Configuration.h like below.</p> <pre>//===== 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 X_PROBE_OFFSET_FROM_EXTRUDER 0 //Your BLTouch X_PROBE_OFFSET_FROM_EXTRUDE #define Y_PROBE_OFFSET_FROM_EXTRUDER -23 //Your BLTouch Y_PROBE_OFFSET_FROM_EXTRUDE #define Z_PROBE_OFFSET_FROM_EXTRUDER -1.5 //Your BLTouch Z_PROBE_OFFSET_FROM_EXTRUDE // #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 //===== R/C SERVO support ===== #define NUM_SERVOS 3 //remove // at the start of the line</pre>
Previous Versions before RC7
<p>Before installing BLTouch, please setup your configuration.h and check if it works well with your 3D printer.</p> <pre>//===== Mechanical Settings ===== const bool Z_MIN_ENDSTOP_INVERTING = false; //===== Z Probe Options ===== // #define Z_MIN_PROBE_ENDSTOP // add // at the start of the line *RC4 ~ RC6 #define Z_MIN_PROBE_USES_Z_MIN_ENDSTOP_PIN //remove // at the start of the line *RC4 ~ RC6 //===== Bed Auto Leveling ===== #define AUTO_BED_LEVELING_FEATURE //remove // at the start of the line #define X_PROBE_OFFSET_FROM_EXTRUDER 20 //Your BLTouch X_PROBE_OFFSET_FROM_EXTRUDE #define Y_PROBE_OFFSET_FROM_EXTRUDER -20 //Your BLTouch Y_PROBE_OFFSET_FROM_EXTRUDE #define Z_PROBE_OFFSET_FROM_EXTRUDER -1.0 //Your BLTouch Z_PROBE_OFFSET_FROM_EXTRUDE #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}} //remove //, 10=deploy, 90=retract // #define DEACTIVATE_SERVOS_AFTER_MOVE //Don't remove // at the start of the line</pre>

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