

# BL-Touch

The BL-Touch is a physical bed leveling probe that the printer uses instead of the Voron's default inductive probe.

## Klipper Config

The probe requires making some changes from the Voron `configuration.cfg` template, details of which can be found in the Klipper documentation [here](#). These changes should mainly consist of:

1. In the `[stepper_z]` section, set `endstop_pin: probe:z_virtual_endstop`, and ensure there is no `position_endstop` defined.
2. Add the following sections:

```
[bltouch]
sensor_pin: ^PB_7  # white wire
control_pin: PB_6  # yellow/green wire

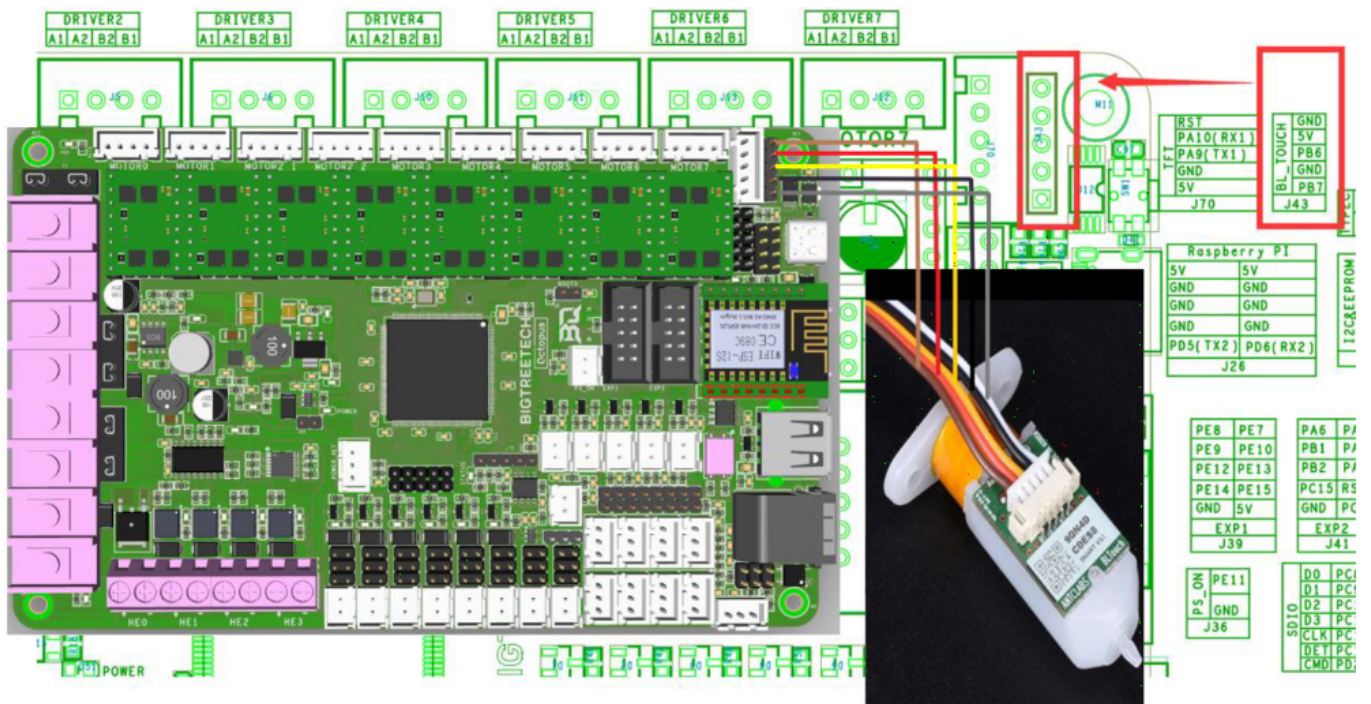
[safe_z_home]
home_xy_position: 457, 457 # Change coordinates to the center of your print bed
speed: 50
z_hop: 15                # Move up 15mm
z_hop_speed: 5
```

## Z-Offset Calibrate

To calibrate the probe's Z offset, use the `PROBE_CALIBRATE` command to start the procedure. Mainsail will then display a set of buttons that can be used to position the nozzle so that you can just barely push a 0.09mm (standard printer) piece of paper under the nozzle without it folding or bending, and then ACCEPT the new value.

## Wiring

The BL-Touch is connected to the Octopus board according to the diagram from [here](#) (note that the config information on that page is *irrelevant* as it is for the RepRap firmware which the printer does not use):



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