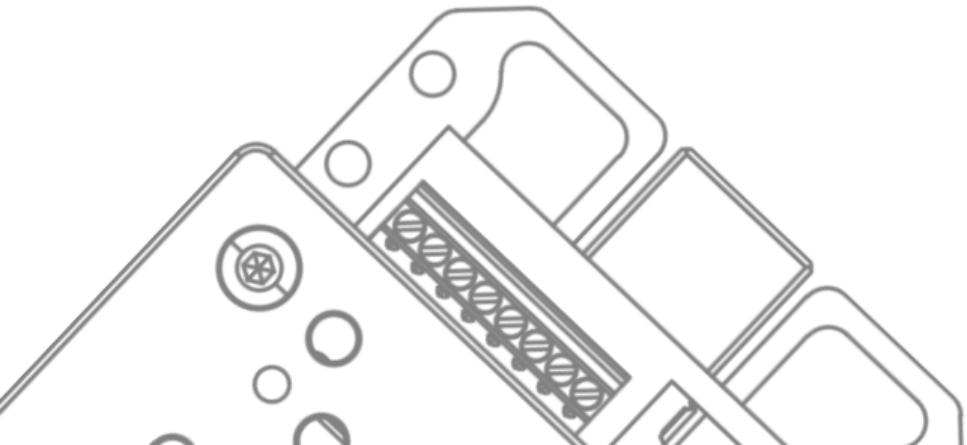


User Manual



Hermit Crab

The Hermit Crab is an innovative part for most 3D printers in the market. It is upgraded by R&D team of Shenzhen Big Tree Technology Co., Ltd. Hermit Crab is an alternative of the traditional POM slider on the X-axis. It is also can be attached to MGN12H linear rail.

Advantages:

- Compatible with various hot ends, such as nozzles, laser heads
- High motion precision and excellent printing performance.
- With a spring clip, easy to install and remove.
- High adaptability, with multiple ports and fixing holes.

Recommended liner rails for Hermit Crab:

	Ender_3	Ender_3 V2	CR-6 SE	BIQU-B1-SE-PLUS	BIQU-BX	Other
MGN12H Linear Rail	310mm	320mm	345mm	400mm	330mm	TBD

Install the linear rail to X-axis of the printer.

Installation instruction

Type 1: Mounting it to X-axis with POM wheels

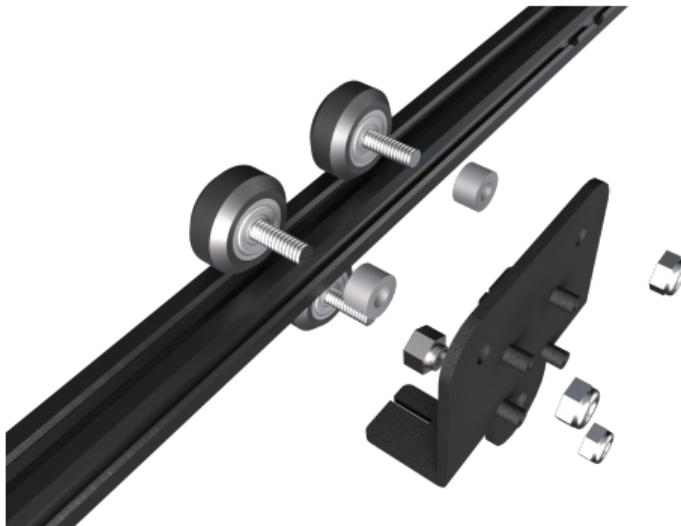
1. Press the spring clip to remove the upper part as shown



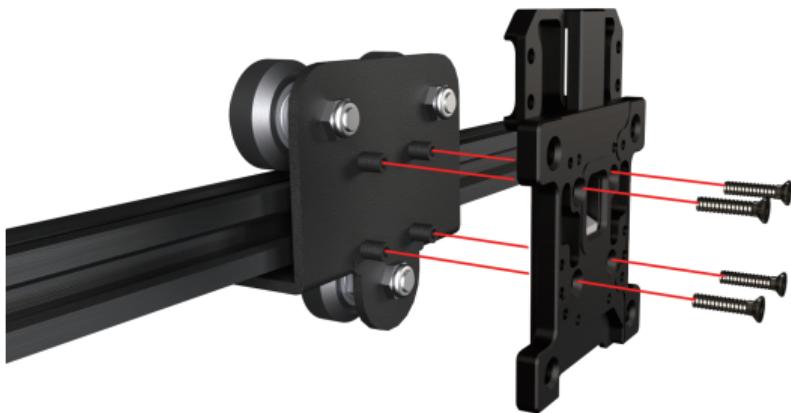
2. Remove the PCB board as shown



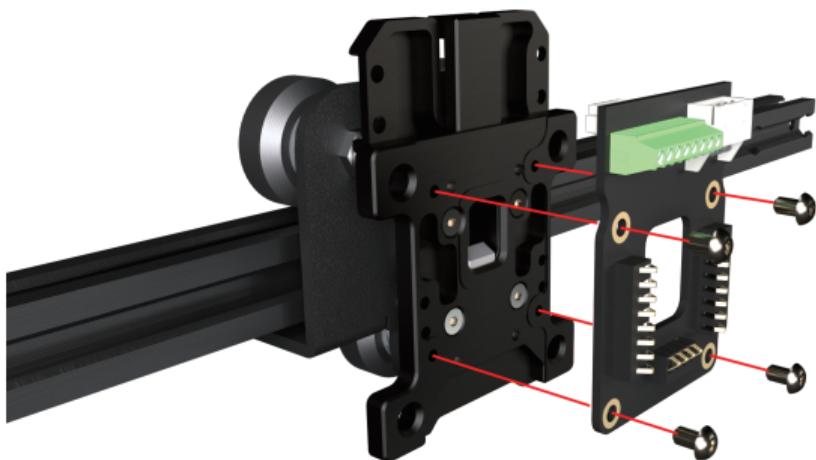
3. Install the sheet metal to POM wheels



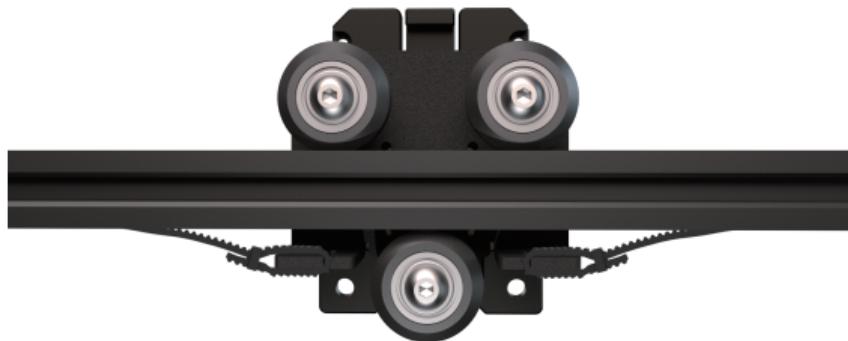
4. Attach the above part to the slider as shown



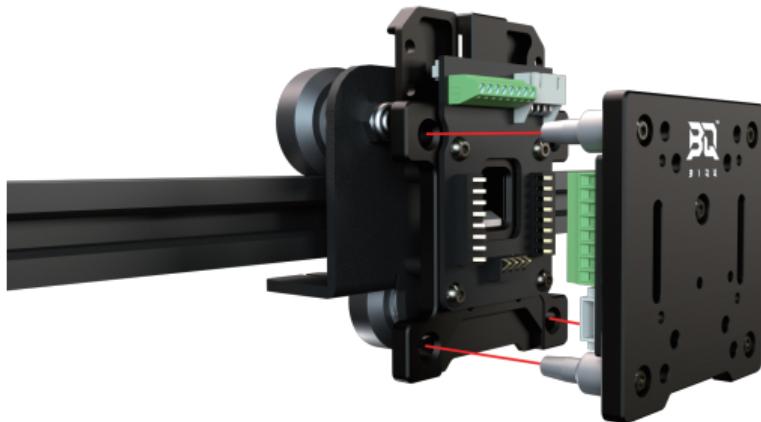
5. Fix the PCB board



6. Install the timing belt

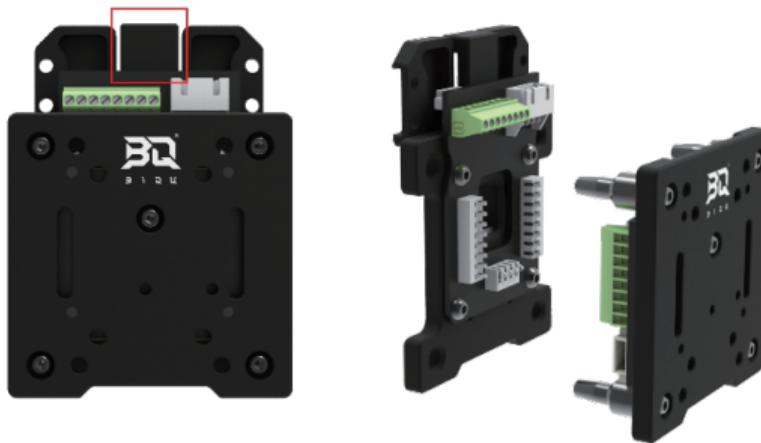


7. Install the upper part



Type 2: Mounting it to the liner rail

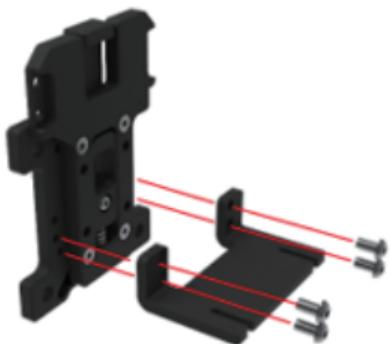
1. Press the spring clip to remove the upper part as shown



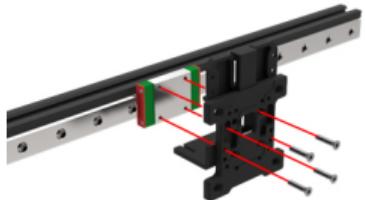
2. Remove the PCB board as shown



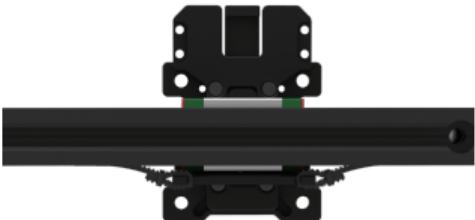
3. Installation of timing belt fixing bracket



4. Attach the base to the slider



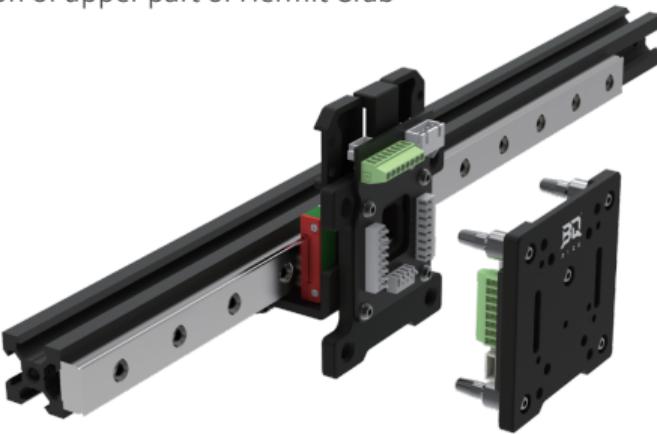
5. Installation of timing belt



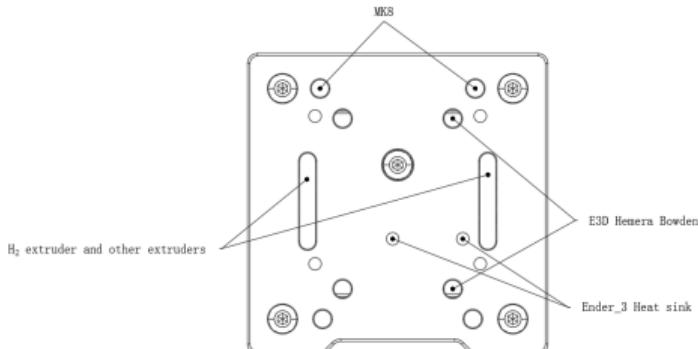
6. Fix the PCB board



7. Installation of upper part of Hermit Crab

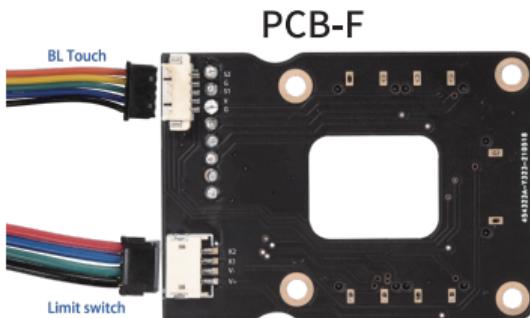


Compatible extruders and accessories

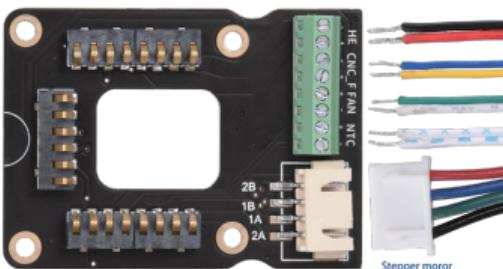


- Hermit Crab is able to mount nozzles, laser heads

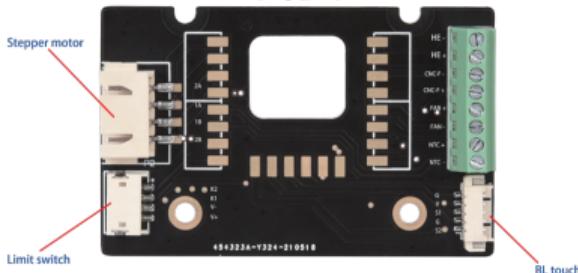
PCB board interfaces



PCB-F



PCB-T



- ① HE: Heating cable interface
- ② CNC-F: Controllable fan interface
- ③ FAN: Fan interface
- ④ NTC: Thermistor interface
- ⑤ For 2 two-phase four-wire stepper motors
- ⑥ Limit switch interface
- ⑦ BL Touch interface

The interfaces of PCB board designed for print nozzles, BL Touch level and limit switch.

1.M3x8 bolt

2.M3x6 bolt

3.M3 spring spacer

4.Slide fixed plate

5.Slider

6.Spring

7.Pull hook

8 Fixed plate

9.PCB-F

10.M3x5 bolt

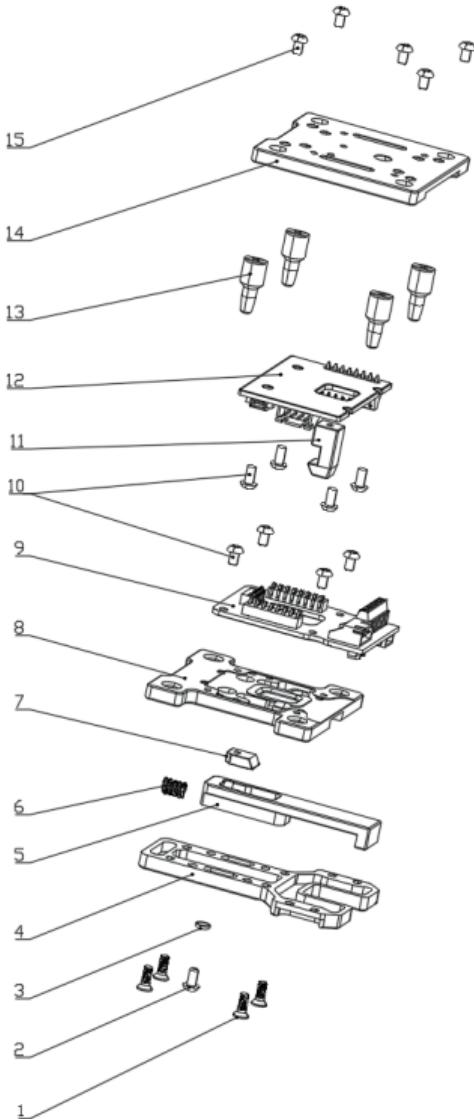
11.Barb block

12.PCB-T

13.Location pin

14.Tool plate

15.M3x6 bolt



Hermit Crab CAN

Hermit Crab CAN is an upgraded version of Hermit Crab, which launched by the 3D printer R&D team of Shenzhen Big Tree Technology Co., Ltd. It improves the terminal board, making wiring more convenient.

Functions:

8P bolt terminal (heating cable+thermistor+2 fan interfaces) + 4P filament runout detection + 5P BL touch + 4p motor cable
For more expansion of printer head functions.

NOTE:

1. The installation is the same as Hermit Crab but the wiring is different.
2. The tool plate is the same as the Hermit Crab.

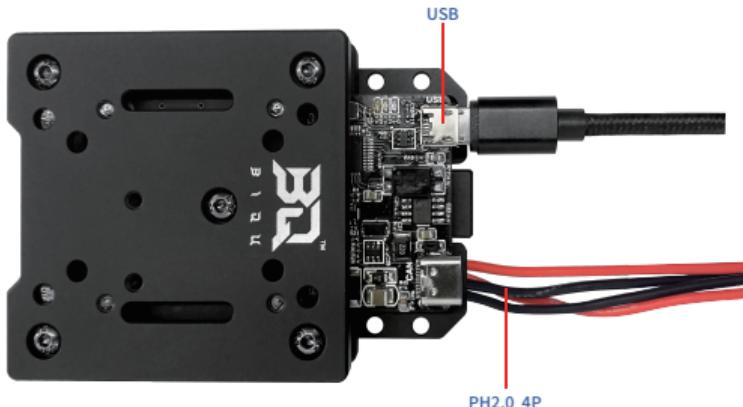
3. Hermit Crab CAN only works with Klipper firmware.

As for firmware setting, please reference to the following link:

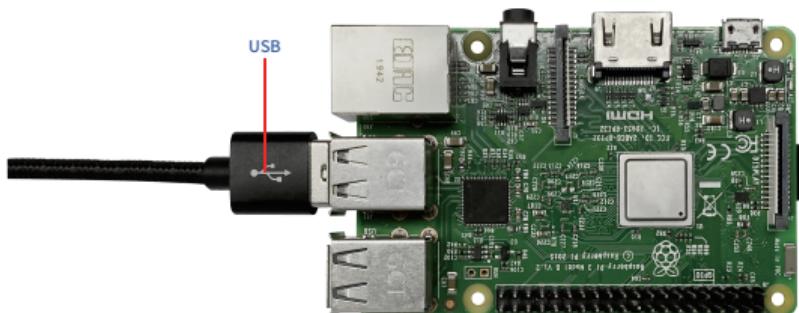
<https://github.com/bigtreeTech/Hermitcrab>

Wiring of Hermit Crab CAN

Type 1: Connect power cable and USB cable to BTT CAN HotMode



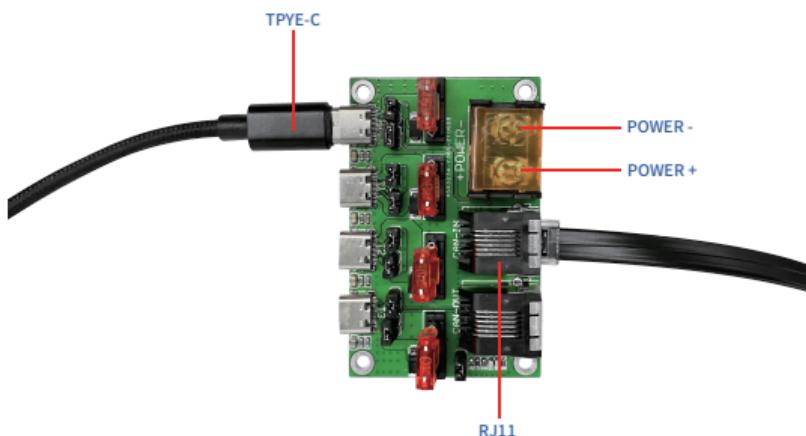
The other end of the power cable is connected to a 24V power supply, and the other end of the USB data cable is connected to the Raspberry Pi.



Type 2:Tpye-C wire is connected to BTT CAN HotMode.



The other end of the Tpye-C is connected to to the BTT CAN-Distribution Board, and RJ11 cable is connected to the BTT CAN-Distribution Board



The other end of RJ11 is connected to BTT RPT-CAN HAT, and the BTT CAN-Distribution Board is connected to the Raspberry Pi.

