HELIOS HEATED BED PLATFORM

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The HELIOS heated bed is a PCB based 3D printing platform that uses copper traces as the heating element. It has the same hole patterns as the Prusa PCB Bed (209mmx209mm) so it is a drop in replacement for 200mm x 200mm build area beds. The overall dimensions has been increased to provide more space for the mounting holes and widen the power tracks supplying the traces. The PCB is 0.125" thick (2x that of the regular beds) to minimize warping and provide rigidity to allow mounting on 3 points only(easier to level!). Mounting the thick power wires is now easier by using wire terminals and secured by screws to the PCB
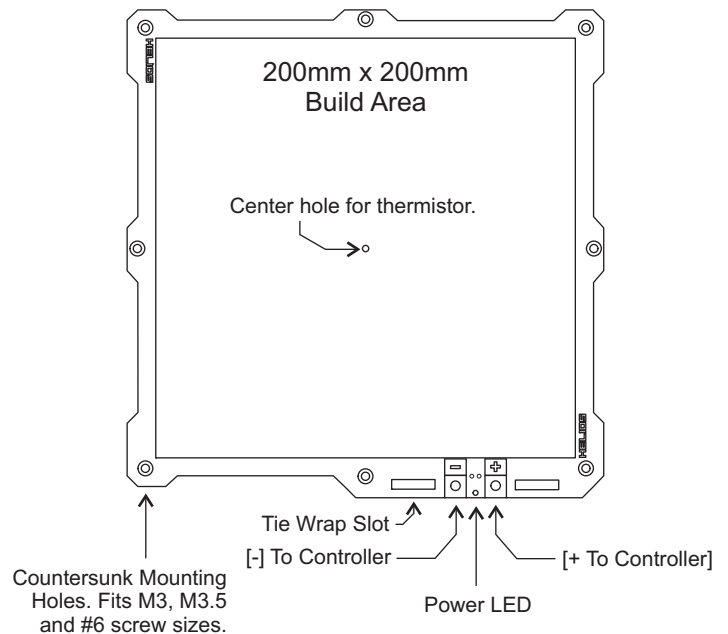
Features:

- 1/8" thick Tg170 FR4 PCB RoHS
- 200mm x 200mm build area
- Counter sunk mounting holes for totally flat surface
- Screw holes for wire connections
- Center pads for thermistor mounting with wire connections on the PCB edge
- Extra wide supply tracks to minimize voltage drops
- Multiple hole mounting configurations
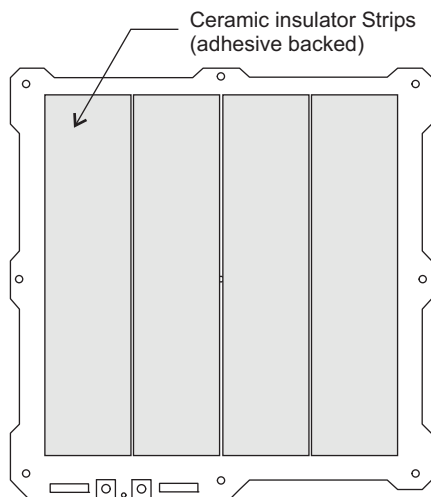
Specifications:

Supply Voltage: 12VDC
Trace resistance: 1.1 ohms +/- 0.15 ohms
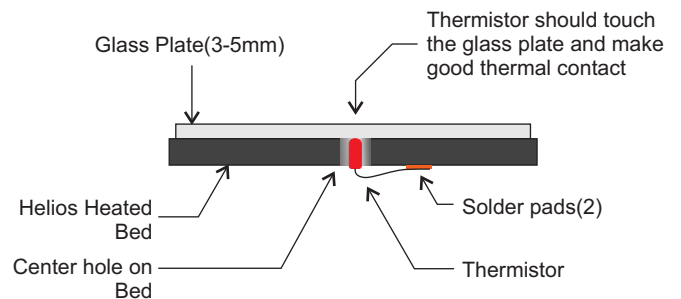Current Drain: 11-13 Amperes(cold)

What's in the box:

1 x Helios Heated bed w/ LED
4 x M3 screw/washer/lock nut set
1 x Wooven adhesive backed insulating strip
2 x Wire terminals
2 x #8 screw/washer/lock nut set

200mm x 200mm Build Area

Center hole for thermistor.

Tie Wrap Slot
[-] To Controller
[+ To Controller]
Power LED
Countersunk Mounting Holes. Fits M3, M3.5 and #6 screw sizes.

Bottom insulator install
(To minimize heat loss)

Ceramic insulator Strips (adhesive backed)

Cut insulator to about 8" strips, peel of backing and arrange on the bottom of the bed as shown. Apply pressure for an hour or until adhesive has set. Add kapton tape to the sides to secure the strips. Make sure surface is clean before placing strips, otherwise it may fall off when heat is applied.

Thermistor mounting on center hole

Glass Plate(3-5mm)
Thermistor should touch the glass plate and make good thermal contact
Helios Heated Bed
Solder pads(2)
Center hole on Bed
Thermistor

You can use thermally conductive glue to secure the thermistor and ensure good contact with the bed. Place a piece of tape on top to seal the hole, insert and solder the thermistor then pour the thermal glue to fill the hole. When cured remove the tape and place your glass plate.

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226mm

209mm

104.75 mm

200mm x 200mm
Build Area

209mm

230mm

Connection to thermistor
pads at the bottom center
of board