

Trinus heated bed modification

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Foreword

Due to the way the Kodama Trinus bed & the Bardo V1.3 board work, the bed cannot be simply wired to a typical Marlin control board.

The Kodama heated bed has an onboard Mosfet that regulates the temperature and the onboard Mosfet is driven via a simple single wire connection that applies PWM +4.8 VDC to turn the heater on and +/- 0.2 VDC to turn it off.

The 4 core cable from the Bardo board is made up of

- Black = +12 VDC
- Green Yellow = GND
- Brown = Heating control
- Blue = Thermistor



So in essence this is a heated bed that is always powered and is controlled by single 5 volt line (brown) while giving temp feedback on a single line (blue)

After considering many options for adaptation, I decided on the easiest and most straight forward to realise. Also allowing for a return to the original if this were ever needed. So a non-destructive adaptation.

MODIFICATION

As the OEM bed wiring is very stiff I opted for silicone cable that I typically use on all 3D printers rather than adapt the OEM wiring.

The respective Red and Black wires were soldered to the +12Vdc & GND for testing purposes. Once terminals for the bed plug are available the solder connection will be replaced.

I installed a "glass bead" style thermistor with the use of Kapton tape.

Cont'd

After researching the onboard Kodama Mosfet (L3803S) I solder linked the Drain & Source together. In effect by passing the HB Mosfet

The HB "on board" white power LED still mm works in as much as it follows the duty cycle of the PWM signal being supplied to the heated bed.

