My observation of Mandala Rose Works Voron pre-production Kinematic Bed Mounts

**NOTE*** I do not represent Mandala Rose nor speak for them; these are my personal views. Mandala Rose provided pre-production kinematic bed mounts for testing.
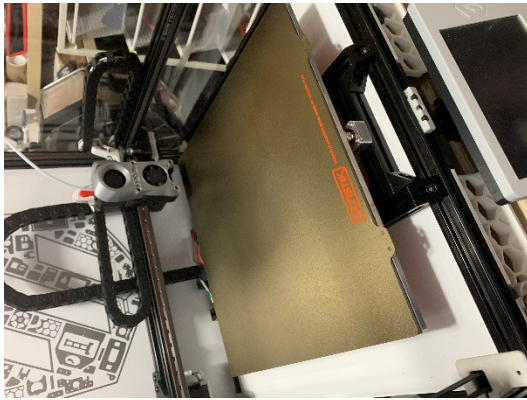
Testing printer:

Voron 2.4 350mm

CPC rails

Mandala Rose Works 350mm v1 bed

Keenvo Fermiolabs syle 340mm x 340mm 750W 120V w/150C T-stat for V1/V2 350 heaterpad

LGX extruder with AB-BN fan shroud mod

Mosquito Standard flow hot end



My Goals:

Able to run 100% power to heater pad

Allow thermal expansion of bed

Consistent bed mesh variance

Quad Gantry Leveling passes not negatively impacted and with possible improvement by doing less passes.

Installation of pre-production bed mounts:

Installation required drilling and tapping m3 hole on the middle front portion of bed (existing MRW Voron beds have require hole). Securing the ball mounts with m3 nuts.
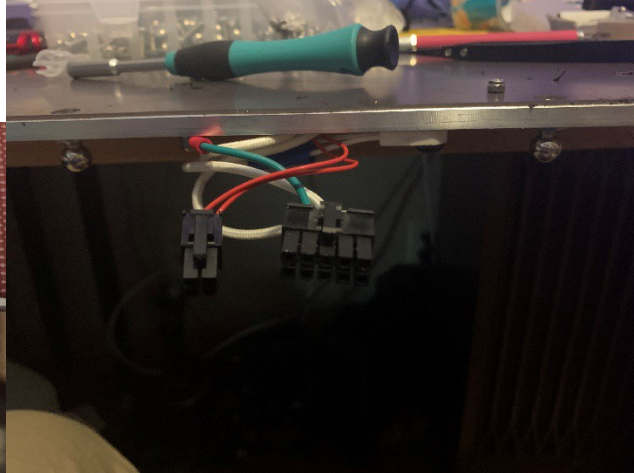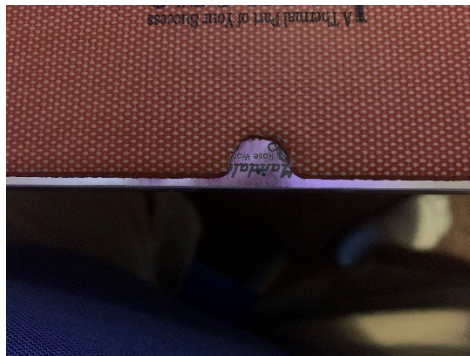
Installing 2020 extrusion in front between the existing bed extrusions. Printed 2020 extrusion with 50% infill in ABS first to confirm length needed and any possible installation issues. Ran prints on printed version without issues. After validation; installed Misumi 2020 extrusion.
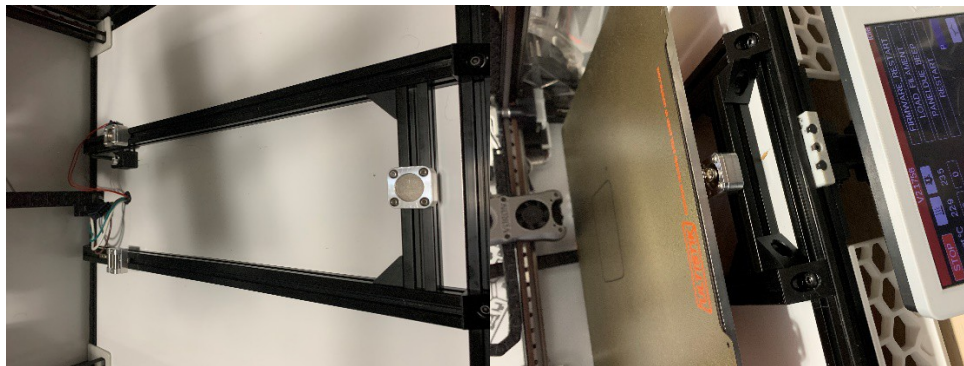
The pin mount was hitting the deflanged GT20 in the z-stop; requiring moving Z-stop away from extrusion by 2mms. This was accomplished by using longer screws using nut and 5mm washer. I will be replacing nut and 5mm washer in future with printed spacers.
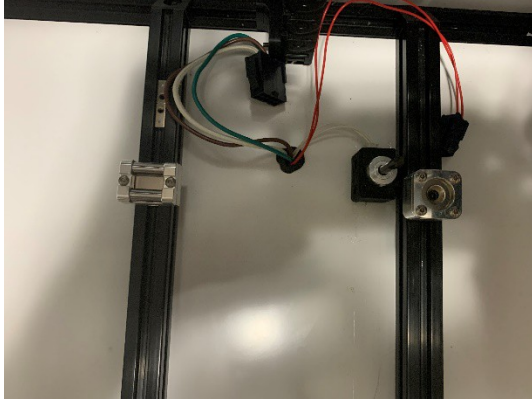
Before installation my z-pin length was 27mm after installation needed 42mm pin.

Tests:

Ran over two (2) dozen prints with bed @ 110.  Each print the bed was cooled down back to ambient temperature before new print started.  Longest print was 28hours.  Printed all my V.01 parts and mods with MRW Kinematic Bed Mounts installed.

Z offset never varied after initial setting.

Number of Quad Gantry Leveling passes same before and after Kinematic Bed Mounts installed. NO change for me.

Bed Mesh varied slightly by .004-003mm during each bed mesh calibration before each print. 25 points bed mesh pictured.
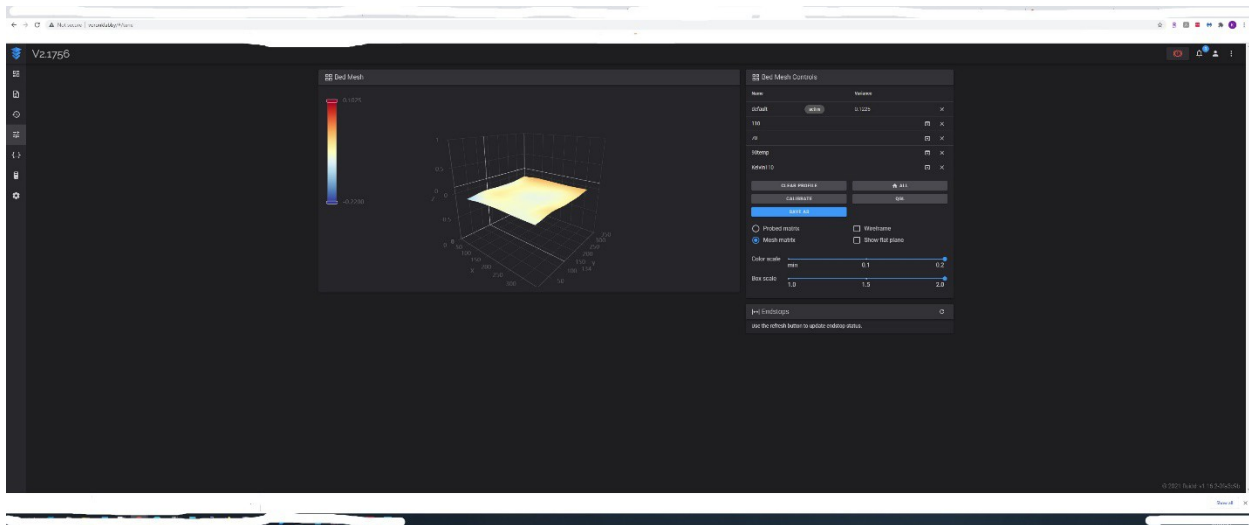


Conclusion:

The MRW Kinematic Bed Mounts accomplished the goals.  I'm able to run heater pad @ 100% without any bed deformation; allowing bed to heat up to required temperature in short time.  My z-offset never varied after initial configuration.   Installing the kinematic bed mounts did not impact bed mesh and were consistent.   Thermal expansion of bed was achieved without negative impact. Z height was negatively impacted by 15mm; loss of Z height seen by others will likely be different but will be impacted.

The pre-production installation of the MRW Kinematic Bed mounts was not difficult.