TVS AMC (Volterra)visit details

**Hardware Changes:**

1. Changed X-Y Motors to Nema-17 48mm.
2. Installed encoders.
3. MKS 2.1 with TMC2209 drivers have been installed.
4. ABL board is on carriage with Z-dir inverted.
5. Raspberry-pi 4B+ used.

**Firmware changes:**

1. Changed "Z\_MAX\_POS" to 390.
2. Changed "INVERT\_Z\_DIR" from true to false.
3. ABL code: This is code for Pro and Volterra series- Carriage - bed levelling.
4. Changed ABL code of INVERT\_Z\_DIR == true.

Issues found:

1. Octoprint showing as Julia-Extended. Uninstalled pre-installed plugin of touchui in Plugin manager and Installed the latest plugin of Volterra using the below link

<https://github.com/FracktalWorks/Volterra400Dual2022TouchUI>

1. Tower-light not working. Installed the plugin using the below link <https://github.com/FracktalWorks/OctoPrint-JuliaTowerLight>
2. Bed hitting the Hotend: changed the Z-max\_pos in the firmware to 390mm from 410mm.
3. Display/touch UI stuck after turning ON means after giving any command from the display- Checked all the cable connections in Pi and Display, after reseating all the cables worked fine.
4. Gantry was moving inversely so changed the Invert\_Z\_dir to false in the firmware.
5. ABL getting activated in downward direction, changed the direction in ABL-code.

(This is code for Pro and Volterra series- Carriage - bed levelling

)

1. Applied lubrication on Guideways, as the movements are too noisy.
2. Checked the movement of all motors and fans, all working fine.
3. Found that corner block pulleys got damaged over time, have to replace in next visit(all pulleys and bolts of corner blocks).