CR-30 NAK 3D/LDO stepper upgrade instructions

******NOTE*****

Before beginning make note of how belts are routed. Take pictures if necessary.

- 1. Power off and unplug printer.
- 2. Unplug X & Y axis steppers.
- 3. Remove old steppers by loosening the 2 screws on bottom of stepper bracket and remove one screw from top of main crossbar.



4. Disassemble 1 LDO stepper and set pulley height for top left stepper (as seen from back of printer looking down on hotend, or the one with the short shaft)



5. Place pulley on shaft with set screws at the top and there should be 7mm from top of stepper casing to bottom of pulley (as shown below)



6. Reassemble stepper as shown below.



7. Disassemble 1 LDO stepper and set pulley height for top right stepper (as seen from back of printer looking down on hotend, or the one with the long shaft)



8. Place pulley on shaft with set screws at the bottom and there should be 15mm from top of stepper casing to bottom of pulley (as shown below)



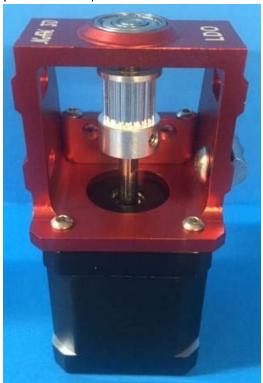
9. Reassemble stepper as shown below.



- 10. Install new steppers using provided T-nut and M5 screw, and original long M5 screws.
- 11. Short shaft aka top left stepper should be installed with t-nut and M5 screw in the top left side slot (as pictured below)



12. Long shaft aka top right stepper should be installed with t-nut and M5 screw in the bottom right side slot (as pictured below)



- 13. Leave side and bottom screws loose and install top adjustment screw through main frame crossbar.
- 14. Re-install belts.

- 15. Use top adjustment screws to tighten belts (try to keep them equally tensioned) Belts are properly tightened when X-axis assembly does not slide down y-axis under its own weight.
- 16. Tighten all 4 mounting screws.

Firmware changes

- 1. Plug in and power up printer
- 2. Press scroll wheel, select "Configuration", "Advanced settings", "Steps/mm"
- 3. Select "X Steps/mm:" and change value from 80 to 160
- 4. Select "Y Steps/mm:" and change value from 80 to 160
- 5. Return to "Configuration" menu and select "Store Settings"
- 6. Enjoy your new LDO .9 low temp supported shaft stepper kit.