Dimensions
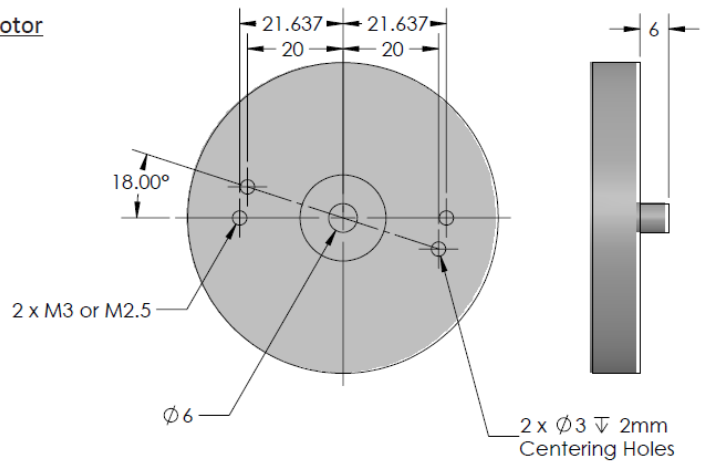
Encoder

Magnet
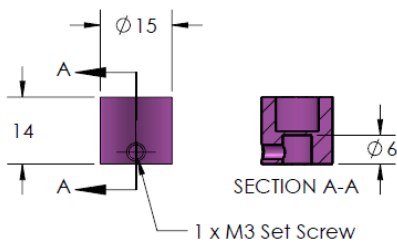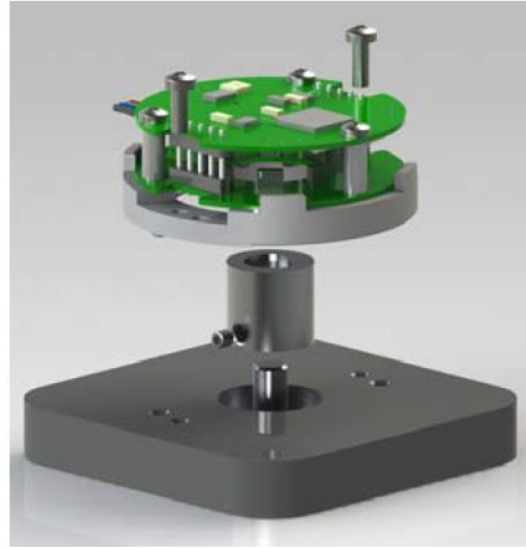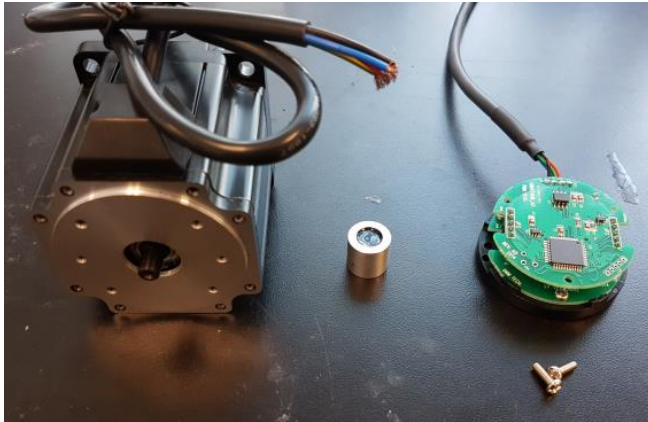
Motor

Parts Needed

- ABS-16-00 Encoder With Magnet Rotary
- 2 x M3x8mm Mounting Screws
- Encoder Tuning Pigtail Connector (Part# SPCU-ET05PCAL)
- DYN2 or DYN4 AC Servo Drive
- USB DYN Servo Drive tuning cable (Part# CA-MTUSB-FR1)

Mounting Procedure:

(1) Apply small amount of glue onto inside shaft of magnet rotary * Recommended Glue: Loctite 648 or equivalent

(2) Install the magnet rotary onto the servo motor shaft. Tighten the set screw to secure the magnet rotary.

(3) Install the encoder over magnetic hub and onto motor surface. Secure using two M3 screws.
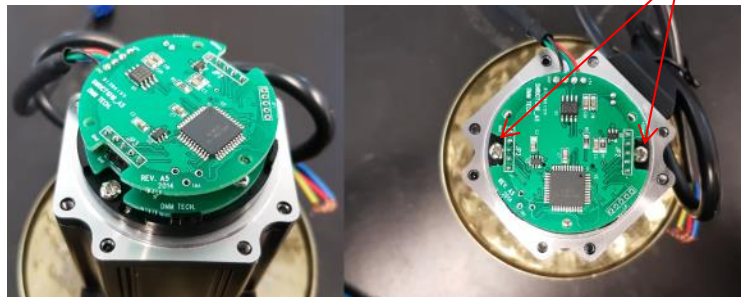
Make sure magnetic hub is not rubbing against encoder PCB. There should be approximately 1.5mm space between the top of magnetic hub and encoder PCB.
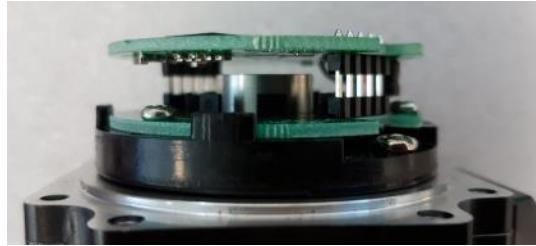
(4) Make the motor power cable connector.
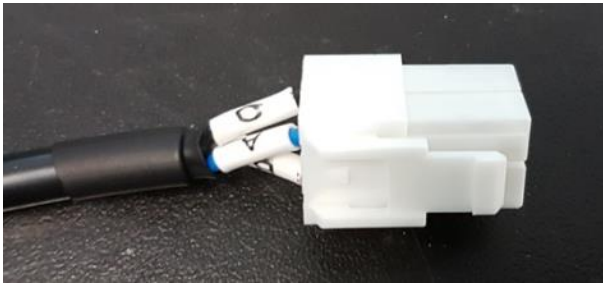
Connector	VLP-04V Manufacturer: JST
Pin Contact	SVF-61T-P2.0 Manufacturer: JST

Connector Position	Signal	DMM Servo Motor Power Cable Color
1	Phase A / U	Blue
2	Phase B / V	Red
3	Phase C / W	Black
4	FG	Green/Yellow

(5) Download MotorDef program from this link:
https://app.box.com/s/kbrt3myup03guxktlx0vb34joywlljo1

Power ON the DYN2 or DYN4 servo drive and connect the tuning cable. Open the "MotorDef.exe" program. Set the COM Port number the tuning cable is connected to, then press "Read".
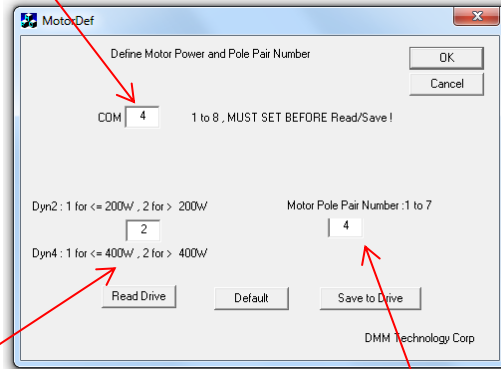

Set the left parameter according to current output. If the motor's peak current draw is less than 10A, set to "1". If the current draw is more than 20A, set to "2".

Set the right parameter according to motor pole pair number. If the motor has 4 pole pairs, set to "4". If the motor has 5 pole pairs, set to "5".

Press "Save to Drive" once parameters are set.

(6) Power OFF the servo drive. Plug the Encoder Tuning Pigtail Connector into the tuning port. Then connect both the motor power and encoder cable into the servo drive.
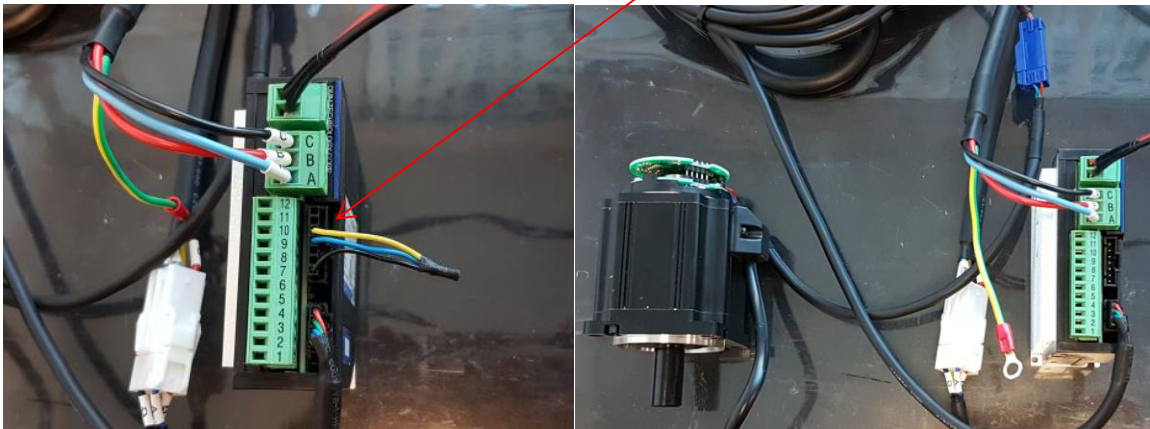
(7) Power ON the servo drive. The motor will rotate **clockwise** for 20~30seconds, then stop – this is the encoder tuning/zeroing procedure. After the motor has stopped, wait 10seconds, then the shaft will become free to indicate that the tuning has completed. Do not touch the motor shaft anytime during the tuning procedure unless it has finished and the shaft is free. Power OFF the servo drive. Proceed with this tuning procedure 3 more times.

Note: If the servo motor rotates **counter clockwise**, then the motor phases are connected incorrectly. Try switching phase A and B or try different A/B/C combinations until the rotation is **clockwise**.

Remove the Encoder Tuning Pigtail Connector to complete the procedure.