4th Axis Assembly Instruction

V-Wheels, Slider Plate, Tail Stock

Hardware

(8) 625-2RS bearings

(4) Small V Wheels

(4) M5 Washers

(2) Small Eccentric Spacers

(2) 6.35mm Fixed Spacers

(2) M5x30 Machine Screw

(2) M5 Nylock Nuts

(2) M5x25 Machine Screw

(4) M5x10 Machine Screws

Press on bearing into a v wheel. Turn the wheel over, place a M5 washer into the wheel on the bearing, and press another bearing into the wheel. Do not forget the M5 washer. Repeat the process with the other 3 wheels.

Locate the tail stock slider plate. Place a v wheel on a M5x25 machine screw, followed by a standard spacer. Screw it into the treaded hole on the corner of the tail stock slider plate. Repeat the process with a second v wheel.

Take an eccentric spacer and insert it into the larger hole opposite of the v wheels you installed earlier. Make sure the notch on the eccentric spacer is facing away from the installed v wheels. Place a v wheel on a M5x30 machine screw. Place the screw through the eccentric spacer and secure with a M5 nylock. Repeat the process with the last v wheel.

Flip the tail stock slider plate over with the wheels down. Locate the tail stock with live center and place it on the tail stock slider plate with the live center positioned as pictured right. Secure the tail stock with two M5x10 machine screws. Leave loose.

Install two M5x10 machine screws into the last two threaded holes. These will be used to lock the slider plate on the base plate extrusion. Leave the screws loose. Place to the side.

Chuck Assembly

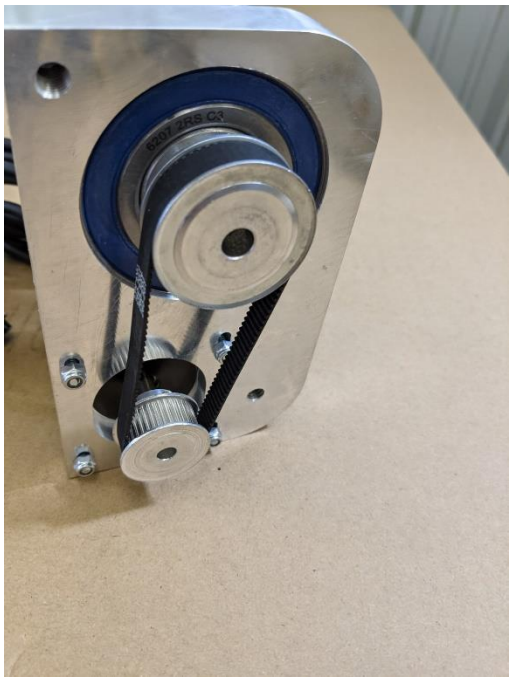
Hardware

(4) M4x20 Machine Screws

(4) M4 Nylock

Place the motor in the opening on the chuck assembly. The motor wire should be facing away from the chuck. The motor shaft should be on the same side as the chuck shaft. Put a M4x20 machine screw through a hole at the corner of the motor, through the chuck assembly plate, and secure with a M4 nylock nut. Leave the screws loose. Place the large gear on the chuck shaft and the small gear on the motor shaft. Leave room to reach the grub screws on the gears. There are two grub screws on each gear. Tighten the screws.

Place the belt on the gears smooth side out. Flip the chuck assembly motor side down to tighten the belt between the gears. Tighten the motor screws.



Base Plate

Hardware

(2) Small T nuts

(4) M5x10 Socket Flat Cap

Place a M5x10 socket flat cap in one hole of the middle set of holes at the end of the base plate. Place the screw in the side with the recessed opening. Lightly thread a t nut onto the screw. Repeat the process with the next set of inner screw holes using the hole in line with the first.

Line up the nuts with the slot on the extrusion and slide it onto the base plate. Tighten the screws.

Slide the tail stock onto the extrusion. Using a 10mm wrench, turn the eccentric spacers until they are snug.

Turn the chuck assembly on its side to allow access to the mounting holes. Line up the holes at the end of the base plate with the holes on the underside of the chuck assembly. Use 2 M5x10 socket flat caps to attach the chuck assembly to the base plate.

Slide the tail stock forward and center it with the chuck. Tighten the screws to secure the tail stock in place.