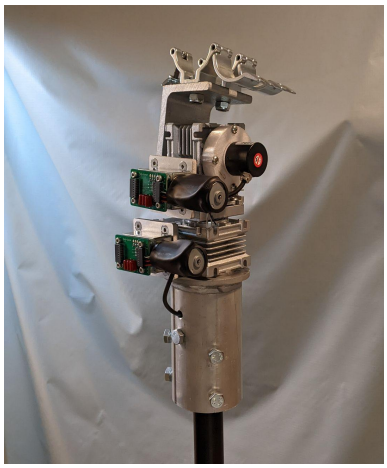
Sub-Lunar SL-1 Azimuth / Elevation Positioner
Technical details - May 2023



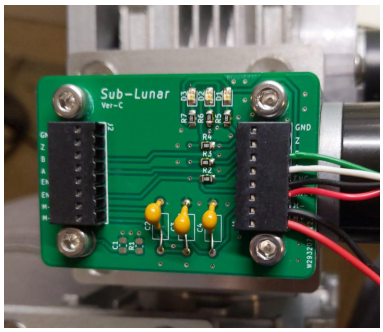
Physical Dimensions - 15" x 6" and weights - 12 lbs
FD6 and FD8 Folding Dishes mount directly to the 2” Clamps
SL-1 AZ / EL rotor mounts on 1.5 to 3.0" pole

Max antenna (vertical) weight - 25 lbs / Max Torque - 25 ft/lbs
Azimuth Drive Gear Motor - 12vdc at 1.5amps max
Elevation Drive Gear Motor - 12vdc at 1.5amps max

Rotation Speed - 360 degrees in 300 seconds
with 12vdc at motors (no load)
Motor to Output Shaft Gearing Ratio - 505 x 60 = 30,300:1

Azimuth Position Encoder - Incremental (Quadrature) / 600 ppr powered by 5 to 12vdc
Elevation Position Encoder - Incremental (Quadrature) / 600 ppr powered by 5 to 12vdc

Controller Interface Connector - Phoenix P/N: 1770940 - 8 POS - Wire 20-26 AWG



Pin 1 - Motor +
Pin 2 - Motor -
Pin 3 - Encoder Supply +
Pin 4 - Encoder Supply -
Pin 5 - Encoder Out A
Pin 6 - Encoder Out B
Pin 7 - Encoder Out Z (if available)
Pin 8 - Ground
LEDs - Indicate Encoder power and Motor Activity

Control Cable wire insert / remove tool provided for 20-26 AWG wires

SL-1 Compatible controllers:

- Green Heron RT-21
- WinTrack & RazTrack by N8CQ
- W2DRZ CT-2
- K3NG Controller

Note: The SL-1 is not a weather proof rotor and must be protected from wet weather. In the near future I will be providing a water resistant fabric cover for the rotor that will keep it dry.

SL-1 Breakout Board Diagram