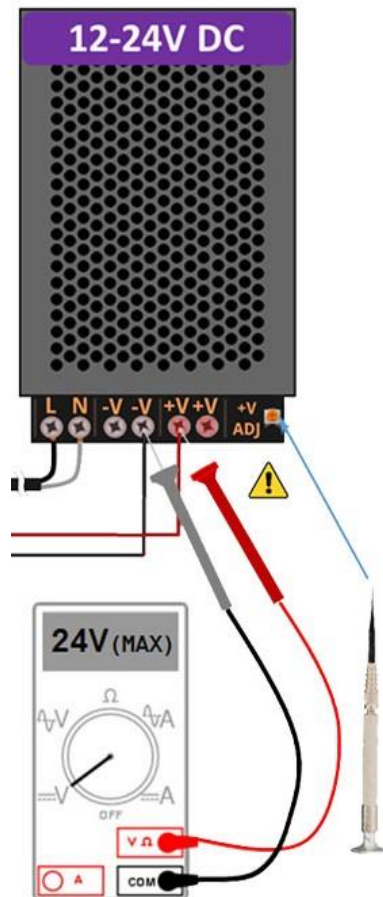


CNC xPRO Troubleshooting Guide

Motors not working/Gantry not moving

1. Confirm Wiring

- a. Check motor wiring
 - i. Typical Nema23 wiring
 1. **RED -> A1**
 2. **GREEN -> A2**
 3. **Yellow -> B2**
 4. **Blue -> B1**
- b. Check that pluggable motor headers are fully seated
- c. Check PSU Voltage
 - i. Confirm PSU is between 12VDC and 24VDC (**36VDC is the max rating for the xPRO V4**)



- d. Check PSU wiring into xPRO
 - i. **V+ -> +**

ii. V- -> GND

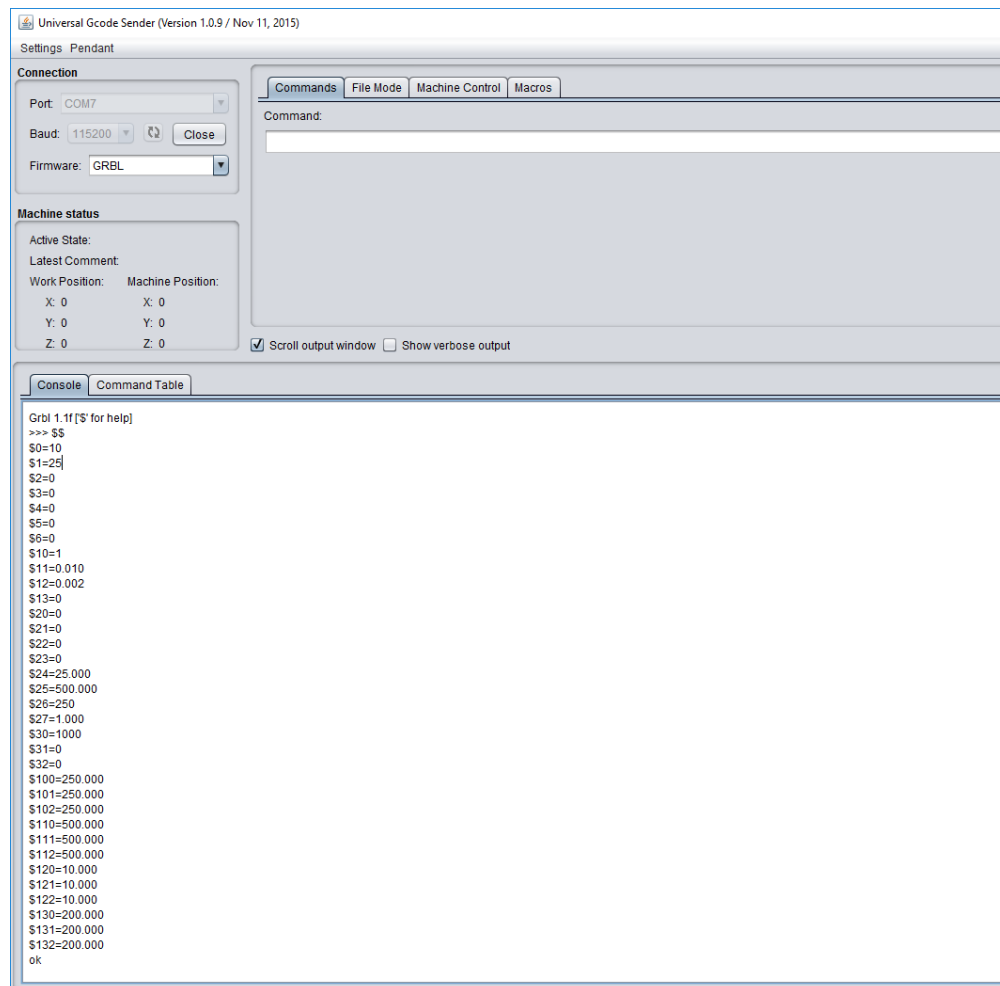
2. Check for binding on the Axis

- a. Turn off power to the xPRO
- b. Axis should be able to move by hand by turning the leadscrew or pushing near the belts
 - i. If axis does not move, check pressure on belts, anti-backlash nuts, and eccentric V-wheels

ii.

3. Check GRBL settings

- a. In UGS send command '\$\$' to the board - you will receive a list of setting as below



- b. Confirm the following hardware specific settings:
 - i. \$0 = 10 (can be anything greater than 10 but never less)
 - ii. \$4 = 1 (For the V4)
 - iii. \$100, \$101, \$102 set step per mm travel so they must be a positive non-zero number
 - iv. \$120, \$121, \$122 should be between 10 and 100
- c. Retest motors