* Orange Pi 5
  + 3.3V Pin cannot be used with the 5V Pin according to the Orange Pi 5 docs.
  + SSH Remote Access  
    If the protocol does not go through, it’s likely the IP has been reset. Attempt to connect keyboard, mouse, and monitor directly to the Orange Pi 5 to access the system and re-acquire the IP from there. See the “Running code” guide.
* Daisy-Chaining Issues

**Make sure all CAN ports are connected CAN-H to CAN-H and CAN-L to CAN-L with the ODrive board’s termination resistors activated only at the last board.**Upon connecting all 8 leg segments, issues began with CAN connectivity. The biggest issue is **alternating ODrive boards are being missed along the chain**. This issue was caused by the pre-made 4-pin JST-GH connectors which have reversed connections. The boards were alternating as CAN-H and CAN-L lines were reversed between boards. Thankfully, the ODrive S1 boards are isolated and this incident did not affect the functionality of the CAN daisy chain.

* Calibration Step Issues
  + **Leg Unmoving, But ODrive Board Flashing Green - Current Dumping**
    - **This is the most serious issue that can be encountered** when dealing with the robot. When two of the three phase wires snap, there’s a chance the leg is visibly not moving, but current is being dumped into the motor. This is extremely bad for the robot and will cause the motor to heat up rapidly. If the heat builds up too much, the legs can melt. Immediately disconnect the robot if you suspect this to be happening and examine the banana cables for disconnects.
  + Jittering Legs - Motor Phase Disconnected
    - This is the less concerning cousin of the first issue. In this case, only 1 phase wire is broken. If the leg is appearing to jitter in place, turn off the robot and check the banana cable for disconnects.
  + Leg Not Changing Direction - Encoder Issue
    - If the legs spin continuously during calibration, this is likely an encoder issue. The most common issue is the ribbon cables falling out of the crimp pins. Check the crimp pins on the female side of the 31-pin JST connector for loose ribbon wires. If that doesn’t solve the issue, check the soldering connections between the ribbon wires on the encoder reader or replace the ribbon cable entirely. If this doesn’t work, it may be time to replace the encoder reader altogether.
* Leg Resistance Issues
  + Metal chips in rotor magnets
    - If you move the leg and detect that the leg is locking up a little before moving again, there might be metal shavings between the rotor and stator. Loosen the set screws on the rotor and pull hard to remove. Use something tacky (tape, putty, etc.) to wipe around the magnets to make sure all shavings are removed.
  + Belt Tensioning
    - If skipping is encountered, open the leg up and replace the belt tensioners. The belt tensioners are two bearings on the lid with red/white 3D printed covers. Make 2-3 shallow cuts not to damage the bearing, and the bearing should come out easily. Refer to the print files or ODRI documentation for printing .stl files, and there should be a few spares in the parts box.
    - \*\*\*When opening up, compress the center gear with a pick to make sure the belt doesn’t deform the encoder wheel.