OreSat

- **Mission**: STEM outreach by sending live video space-to-ground to tracking stations built and operated by Oregon high schools
- Ground stations will be built using 3D printers, COTS WiFi adapter cards, and existing augmented reality cellphone apps that track satellites
- Downlink via 2.4 GHz 802.11b "DxWiFi" on helical with 1 W amplifier and approximately 15 dBi gain. Need to "point-and-stare" at ground stations with **5-10° of pointing at 1 deg/s of slew**
- Can not satisfy slew and pointing accuracy requirements with magnetorquers so we're using a **reaction wheel** based system