



SKYPE SESSION

WITH DAVID MURPHY



TOPICS & DISCUSSIONS...

NOTE: HIGHLIGHTED ITEMS IS MATERIALS WE NEED TO GET!

➤ Gamepad:

- Two main parts in camera tube...Beagle Bone (runs software) and Control Board (programs)
 - Control board has the Arduino chip and controls all telemetry data
 - Make changes to code within control board and upload to Beagle Bone
 - Use update Arduino button within diagnostic menu (restart afterwards)
- Port 8080 runs the cockpit and 3131 allows you to make changes to the code
- OPTION #1...
 - **Download Putty.exe** for windows and use 'SSH Connect' to 162.168.254.1
 - Login name: roV
 - Password: OpenROV
 - Command prompt will allow you to change directories
 - Use VI editor to change code on gamepad.js
- OPTION #2...
 - Set browser to 192.168.254.1:3131
 - Turn on 'browser to edit feature' (on bottom of window)
 - Browse to 192.168.254.1 [see file structure, change directories and edit gamepad.js]
- **ONCE CHANGES ARE MADE WE NEED UPDATE THE ARDUINO IN DIAGNOSTIC MENU**

➤ Water in the Camera Tube:

- Tube leaking around the seal
 - **Silicone grease** the o-rings (search Amazon)
 - **Fatter o-ring**
 - Check assembly documentation for seals
 - Seal must be pressed against glass... 1mm wide when there is a good seal

➤ Condensation:

- Air moisture when canister is opened...do it in a colder place (put in fridge)
- Continue with silica packs
- Temperature changes causes the condensation

➤ Change Motor Control:

- Within diagnostic menu
- Reverse the action of the vertical motor

➤ Taking propellers/motors off:

- Magnetic so they will pull off
- Need to remove c-clip on the thrusters
- Use a **small flat screwdriver**
- Pull the shafts out to clean and rinse
- Water has a tendency to stay in with bearings
- Inject **Aqualube** with a syringe to bearing and put on housing

➤ Dive sites:

- Clear water
- Under ice would be a possibility...less currents and water would be settled (cut hole)
- Challenges will be...Current – place ROV upstream and have tether downstream
- More than one person controlling the device...look at data from telemetry
- Manage the tether
 - **Polyurethane rope** floats...put tether inside this so that tether does not drag ROV
- Use ping pong balls (glue rope to them and attach to tether)Record the dive (he uses VLC) and record notes/data with each dive