

DPRG RBNV Chat Record – 2/2/22

Carl Ott

7:40 PM

~7:37pm Pat showed video - Robot driving around and had questions... Travelling 300-cm (10ft) - pulls a little to the right, turned around...

Carl Ott

7:56 PM

Pat -> Gold Star!

Carl Ott

8:05 PM

~8:03pm - Ray showed updates to his mill - new gear head and electronics mounted...

Carl Ott

8:19 PM

~8:16pm - talking about 3D printing with carbon fiber filament (ouch at \$100 / pound vs. ABS at \$10 / pound)

Doug Paradis

8:32 PM

3D printer enclosure: <https://www.thingiverse.com/thing:1981100>

Carl Ott

8:35 PM

Much discussion about how heated 3D enclosures improve print quality, especially for carbon fiber printing. Also lots of discussion about 3D printer options - vendors and models...

Carl Ott

8:43 PM

~8:42pm - discussion on printing flexible filament / how direct drive extruder much easier - fewer errors in print, etc...

Pat Caron

8:44 PM

I have a video update

Carl Ott

8:45 PM

Let's do Pat's Video update, then move onto more roboty stuff w/ Chris and then Paul...

Carl Ott

8:49 PM

~8:49pm Pat showed an updated video (created while we were discussing 3D printers)

Carl Ott

8:56 PM

~8:51pm Chris- showed his Romi with obstacle avoidance while navigating. Since last week - tried many different things, tweaked parameters -> was able to produce much smoother travel - not as much obstacle avoidance wobbling. What made the biggest difference in the end - was realization that navigation would tend to turn in place if heading was way off - then obstacle avoidance would have it turn back... no behavior was strongly saying to go forward....

Hence - biggest change for navigation -was to maintain more forward motion instead of turning in place...

Carl Ott

9:02 PM

Chris -> Nicely Done ! -> Gold Star !

Carl Ott

9:06 PM

~9:05pm - talking about building an occupancy grid, to have a simpler more understandable mechanism vs. the more complex and obtuse modules available via ROS

Carl Ott

9:25 PM

~9:24pm- Paul - gave a demo of success in a major rearchitecting of MowBot HW and SW- needs to address a major problem - has queueing in system somewhere

Also showed tooling - logs coming out of ROS running on Pi and from Arduino ESP32. Very helpful to diagnose the software

Ross Murphy

9:27 PM

Some very nice stuff this evening gents. thanks again. GTG Cheers.

Carl Ott

9:32 PM

Paul showed implementation <https://github.com/thijse/Arduino-Log> - a very handy logging library.

And <https://github.com/PowerBroker2/SerialTransfer> as a very handy serial transfer library

Carl Ott

9:37 PM

~9:32pm - wound up with circular include file dependencies. Found and implemented an OO mediator pattern...

Paul Bouchier

9:38 PM

https://en.wikipedia.org/wiki/Mediator_pattern

Carl Ott

9:44 PM

Paul -> Gold Star!

Carl Ott

9:45 PM

~9:44pm John K- found nice looking project for Halloween

... <https://www.thingiverse.com/thing:4586290>

Carl Ott

9:48 PM

also showed a handy frame that would hold a phone- <https://www.thingiverse.com/thing:5257890>

Carl Ott

9:53 PM

~9:53pm- Doug P- sharing plans for robot (weather permitting) and Pi Camera for an outdoor RC car to gather cone vs. not-code, to build a cascade conde finder program...

Carl Ott

9:55 PM

~9:54pm- John K - adding a jaw with teeth to his Halloween robot

John Gauthier

9:59 PM

<http://www.nilheim.co.uk/latest-projects-and-blog/simplified-3d-printed-animatronic-dual-eye-mechanism>

Carl Ott

10:04 PM

~10:02pm - Harold asked & talking about how he uses an overlay with OBS

FWIW - here's my write up about getting started with OBS

Harold recommended finding streaming overlays with a search like

this... <https://www.google.com/search?q=obs+streaming+overlay&oq=obs+streaming+overlay>

Carl Ott

10:08 PM

sorry- my presentation on getting started with OBS <https://testbedzone.com/obs-and-ndi-a-powerful-toolset-for-diy-video-production-and-streaming/>

~10:08pm - Ray has an Oak-D Lite question - working fine on his Windows 10 machine - but not working so well on Windows 11...

Carl Ott

10:19 PM

DPRG Rabbit Holes (Religious Discussions):

- PID Loops
- 3D Printing
- Odometry
- Linux vs. Windows 10 vs. Windows 11
- Anybody Changing Anything We Like The Way It Is...