DPRG RBNV Chat Record – 01/18/22

Carl Ott
7:49 PM

~7:47- Ray asked about interest in 3D printing systems, e.g. using Gerbel, e.g. a company called Two Trees

Carl Ott
7:52 PM

Doug mentioned SuperGerbil as helpful CNC controller upgrades / replacements https://supergerbil.com/

Carl Ott
7:56 PM

Harold mentioned LightBurn as a very common package for layout, editing, and control software for your laser cutter. https://lightburnsoftware.com/

Carl Ott
8:01 PM

~8:01 - Karim mentioned experience with Mach3 https://www.machsupport.com/software/mach3/

Carl Ott
8:14 PM

~8:13 John K showed LongMill Benchtop CNC https://sienci.com/product/longmill/
said are very good on documentation

Ponder SomeMore
8:15 PM

Sorry, was hoping to go early since I have to bounce to another meeting. Quick shipping update on the Pioneer 3 AT. Tracking says they were picked up in Las Vegas today and should be delivered next Tuesday. Given all the delays I'm taking that with a grain of salt. Plus the shipper was saying to budget for extra delays. I'll send an email to the list when I see some evidence of the shipment actually crossing state lines.

Carl Ott
8:18 PM

~8:17 - Karim gave an update (see above in chat) on the robots some in the group recently bought at auction

Carl Ott
8:19 PM

an auction of 2000 eara Pioneer skid steer 4 wheel robots
and like 12..16 sonars on each one

Ponder SomeMore
8:24 PM

Bye

Carl Ott
8:26 PM

~8:25- John G - gave an update on his next Halloween project - where he could use CV to steer eyes to follow trick-or-treater's faces...

Carl Ott
8:33 PM

Reminder: John G at least earned a Silver Star for showing eyeballs & eyelids working quite well...

John Gauthier

8:36 PM

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

Carl Ott
8:37 PM

That's a link to the animatronic-dual-eye-mechanism

Carl Ott
8:39 PM

John mentioned a clever way to move the jaw - just opening or closing based on the volume...

ed mart
8:40 PM

Believe Believe that how talking fish works

Carl Ott
8:41 PM

John will share the code to run servos - send him your email separately and he'll share it via dropbox

Carl Ott
8:53 PM

~8:52 - Doug P showed his APM auto-pilot - wanting to set it up to load waypoints and get it started without another computer...

Carl Ott
8:55 PM

APM was the predecessor to current PixHawk

Carl Ott
8:58 PM

~8:48ish - Carl raised the issue of radio interference to robot operation - as reminder of current issue - 5G deployment concerns about interference with aircraft - showed these links
https://www.reuters.com/technology/exclusive-major-us-airline-ceos-urge-action-avoid-catastrophic-5g-flight-2022-01-17/ and an Ad with somebody standing on the worlds tallest cell tower as an Airbus 380 flys around https://www.businesstraveller.com/business-travel/2022/01/18/emirates-latest-ad-fe

Carl Ott
9:02 PM

~ 9:00 - Harold described using Azure cognitive services for image recognition - and explaining how you can do quite a bit actually on the free tier of Azure services...
where you can capture images / train a model then download the model in one of several different ways to your robot's neural net

Carl Ott
9:08 PM

~9:07 - Doug D showing his progress to change an RC car into an outdoor rover platform

ed mart
9:09 PM

New bright R/C

Carl Ott
9:10 PM

~9:10 - John K showed a small mower bot "Mowerino"
https://www.thingiverse.com/thing:5193488

Carl Ott
9:12 PM

https://create.arduino.cc/projecthub/salmec/mowerino-81b09e

Carl Ott
9:13 PM

John also showed another cool project "Nomad Omniwheel Robot"

https://www.thingiverse.com/thing:5198607

Carl Ott
9:15 PM

And he showed a small platform that used "auger wheel" or "screw wheel" drive

https://www.thingiverse.com/thing:5204085

works in Snow - Ray noted that some folk in Russia have man sized versions that are actually amphibous

Carl Ott
9:17 PM

~9:17 - Michael I showed starting another claw machine for Halloween - probably will be a big one

Carl Ott
9:19 PM

~9:19 - Rud showed that RPi 4 are able to find and buy - had one come in...

Carl Ott
9:20 PM

~ 9:20 - Pat showed that Pololu motors came in - upgrading from 50:1 to 130:1

Carl Ott
9:23 PM

hoping that this will let him tune the PID loop so that it won't overshoot like it used to- and gives more control at low speed

John Gauthier
9:28 PM

The servo controller code I demonstrated earlier can be found at https://github.com/zizumara/ServoController. I will also post this link to the e-mail list.

Carl Ott
9:31 PM

Thanks John G!

John Gauthier
9:32 PM

Where is the link to send to the DPRG mail list? Is it the same thing as the "Contact DPRG" page?

Carl Ott
9:34 PM

John you should be able to just send an email to dprglist@dprg.org. The server will rebroadcast it, but also add it to the archives using the subject as a thread

John Gauthier
9:34 PM

Thanks

Carl Ott
9:40 PM

~9:38 - Pat showed construction updates to his bigger indoor robot

Carl Ott
9:42 PM

~9:41 - Carl noted an upcoming panel presentation at CMU - check it out here

https://cmucommunity.force.com/customquickevents?id=a3p2S000000cGzj&custom=true

Carl Ott
9:43 PM

~9:42 - Harold gave an update - ROS2 waking up on a Raspberry Pi - making documentation - on his next stream- will get a Docker container running on his RPi, and ROS controller on a laptop...

Carl Ott
9:45 PM

Note that you can tune into Harold's Twitch stream here: https://m.twitch.tv/haroldpulcher

Carl Ott
9:47 PM

Harold noted that there are many ROS1 docker containers easy to find to get up and running on a Raspberry Pi pretty quickly - but ROS2 is not quite as popular - not yet to that level

Carl Ott
9:51 PM

~9:48 - more discussion of using R/C chassis as a robot base

Carl Ott
9:54 PM

~9:54 - Discussed rationale to use Docker for ROS

ed mart
9:55 PM

Anyone looked into maker pi do 2040 $10 robotics board ?

Carl Ott
9:55 PM

Ed I believe Murray has dabbled with those - you may be able to catch him on the Discord server...

Carl Ott
9:56 PM

Harold - from TDD (test driven design) and BDD (behavior driven design) moving on up to RDD (resume driven design)...

Carl Ott
10:03 PM

Harold's reference to get started with Docker https://www.docker.com/get-started

easiest if you already have an ubuntu box to start on

Jason B
10:04 PM

Gotta run. Great discussion tonight.

Carl Ott
10:08 PM

~10:07 - Paul mentioned running Ubuntu lite on a raspberry pi - straightforward enough

7 photons
10:13 PM

I've got to go. Have a good week. :)

Chris N
10:19 PM

help

Ponder SomeMore
10:21 PM

https://www.youtube.com/watch?v=e2IbNHi4uCI&ab_channel=freeCodeCamp.org

Chris N
10:25 PM

Gotta go.... Good night!