

## DPRG RBNV Chat Record – 5/30/2023

Ponder SomeMore

7:35 PM

mostly just lurking today

Carl Ott

7:45 PM

~7:44pm - Doug D showed progress on his Steampunk robot. It's taking physical form - looking like a very clean build!

Carl Ott

7:54 PM

~7:53 - discussed using "Ferrule" wire terminators for robust & clean wire assemblies

<https://www.google.com/search?q=ferrule&oq=ferrule&aqs=chrome..69i57j0i131i433i512j0i433i512j0i512i3j0i131i433i512j0i512i3.1032j0j7&sourceid=chrome&ie=UTF-8>

Carl Ott

7:56 PM

~7:55 - a religious debate started on the merits of 4 sided crimpers versus 6 sided crimpers for Ferrules...

per Wikipedia: A ferrule (a corruption of Latin viriola "small bracelet", under the influence of (ferrum "iron") is any of a number of types of objects, generally used for fastening, joining, sealing, or reinforcement. They are often narrow circular rings made from metal, or less commonly, plastic. Ferrules are also often referred to as eyelets or grommets within the manufacturing industry.[1] Most ferrules consist of a circular clamp used to hold together and attach fibers, wires, or posts, ge

Harold Pulcher

7:58 PM

<https://www.youtube.com/watch?v=ZMQbHMgK2rw>

Carl Ott

7:59 PM

~7:58pm - Harold shared that YouTube link - with a question about Micromouse competitions

<https://www.youtube.com/watch?v=ZMQbHMgK2rw>

Harold Pulcher

8:08 PM

<https://www.youtube.com/watch?v=dTGITLnYAY0>

[https://www.youtube.com/watch?v=3ozgxPi\\_tI0](https://www.youtube.com/watch?v=3ozgxPi_tI0)

<https://www.youtube.com/watch?v=HRaZLCBFVDE>

Carl Ott

8:10 PM

~8:08- Harold shared those 3 links to a YouTube channel which does a good job of explaining various things -

How to control a DC motor with an encoder

How to control multiple DC motors with encoders

Carl Ott

8:11 PM

0:08 / 15:28 • Intro DC motor PID speed control

Carl Ott

8:15 PM

~8:14pm - Pat revisited his ArduCam Time of Flight sensor. Previously was having trouble with reported distances matching images. Showed progress with newer software...

Carl Ott

8:18 PM

ie. the latest example code now seems to read distances that match the scene in front of the camera.

Carl Ott

8:42 PM

~ 8:42pm Doug P shared an update - with 23% off all active status of Pololu brand products!

sale ends tonight

Carl Ott

8:47 PM

~8:44pm - Doug showed more updates using ChatGPT

Carl Ott

8:54 PM

~8:50pm - Karim gave an update of trying to implement the ChatGPT4 strategy for 6-can. And reported that after mapping ChatGPT's suggestions to their existing robot platform - those suggestions were right on and worked! Just didn't work exactly out of the box...

Carl Ott

8:56 PM

~8:55pm - Ray showed the MaxSense A010 - <https://www.seeedstudio.com/Sipeed-MaixSense-A010-p-5562.html> -- a smaller version of what Pat just showed...

Carl Ott

9:09 PM

~9:07pm - Karim asked an "advisability question" - e.g. how to convert motion through a 90 degree range. Bell gears are kinda pricey at the power levels his team needs - and may still need planetary gears for reductions like arms. Noticed some teams using worm gears to drive shoulders for an arm. In past have been reticent due to very few being 'back drivable' and was concerned for a participant getting their 'something' getting caught in the worm gear- and if it can't back-off they'd be stuck

lots of google search results on worm gear and backdrive. e.g. <https://www.machinedesign.com/motors-drives/article/21834661/selflocking-worm-gears-fact-or-fiction>

Carl Ott

9:18 PM

Figure 3 shows back drive efficiency vs. lead angles and rubbing velocity  
<https://www.geartechnology.com/ext/resources/issues/0393x/simonelli.pdf>

Ponder SomeMore

9:29 PM

thanks for that article link Carl

Jim F - CalgaryAB

9:29 PM

Bye. Thanks for the meeting.