

## DPRG RBNV Chat Record – December 6, 2022

Carl Ott

7:41 PM

~7:38pm - Scott G gave an update on his robot BELCH / which had issues at the RoboColumbus competition. Has finally narrowed the issue down to a C intrinsic library for string handling. he discovered that this function strtok() was not Thread safe. Hence, even though each subsystem worked fine by itself - but when integrated those elements together - found a mutli-thread collision.

Also working to get Oak D Lite integrated to Raspberry PI

Carl Ott

7:43 PM

reminder Please Volunteer for 10 Dec competition – Helpers welcome! Contact Karim at ironreignrobotics@gmail.com

Carl Ott

7:53 PM

threadsafe version strtok\_r() and strtok\_s() for recursive and safe - both are thread=safe...

Carl Ott

7:55 PM

Scott found good enough info in a K & R reference book...

Carl Ott

8:05 PM

~8:03pm - discussion on recursion as a algorithm. best-practice or anti-pattern. Conclusion - powerful but dangerous

Carl Ott

8:13 PM

~8:12pm - Ted talked about Tail Recursion, as a safer way to do recursive algorithm...

Doug P.

8:14 PM

Link to use Oak-D-Lite on Roboflow: <https://docs.roboflow.com/inference/luxonis-oak>

Carl Ott

8:14 PM

~ 8:13 pm Carl gave brief update on his DTBW robot. From last week, had UART data transfer issues. Explained that it seems confirmed the issue was buffer handling related. Transfer errors all but stopped after: 1) increasing the transfer from 9600 to 115200 2) increasing the UART status check rate from 10 Hz to 45 Hz.

Carl Ott

8:19 PM

~8:18pm John G- idea around security camera. Distance limited by Wi-Fi to around 100 feet. Hence dabbling with nrf transceivers and a proprietary protocol for file transfer..

Carl Ott

8:27 PM

FWIW - here's a cool tool to create sequence diagrams like the one John showed

<https://creately.com/diagram/example/nv0zic0i067/sequence-diagram-template> And here's another one

<https://www.websequencediagrams.com/>

Carl Ott

8:29 PM

John is using the NRF24L01 <https://www.amazon.com/Makerfire-Arduino-NRF24L01-Wireless-Transceiver/dp/B00090868G>

Carl Ott

8:39 PM

Reminder Please Volunteer for 10 Dec FIRST competition – Helpers welcome! The Kids (and parents) would appreciate the support. Contact Karim at ironreignrobotics@gmail.com

John Kuhlenschmidt

8:44 PM

<https://www.youtube.com/watch?v=YLpCgv8KmTE&t=0s>

Carl Ott

8:45 PM

~8:44pm- Michael I- showed progress to a new arm for his robot claw machine (for Halloween) 3D Printing gears, using NEMA 17...

John Kuhlenschmidt

8:45 PM

Ultimate Guide to Make Self Balancing Robot for Beginner  
<https://www.youtube.com/watch?v=CON0sWNDUco&t=266s>

John Kuhlenschmidt

8:47 PM

self balancing robot | Simulink basics series

<https://www.youtube.com/watch?v=OtmVFIZi5T8>

Doug P.

8:52 PM

Pololu stepper drivers: <https://www.pololu.com/search?query=stepper+motor+drivers&x=0&y=0>

Pat Caron

8:56 PM

Good topics tonight! See you next week

Ted Meyers

9:00 PM

More like a GEEK Magnet!

Carl Ott

9:00 PM

~8:59pm - Doug P asked about Rays' "chick magnet" - AKA - his wrist worn robot telemetry console...

ed mart

9:05 PM

<https://randomnerdtutorials.com/>

Doug P.

9:11 PM

4G LTE USB WiFi Modem (\$45): [https://www.amazon.com/HOSAYA-Portable-Hotspot-Unlocked-88mmx28mmx9mm/dp/B0B593MOXN/ref=sr\\_1\\_1?crid=5GYQH09DZC4D&keywords=HOSAYA+4G+LTE+USB+WiFi+Modem+Portable+4G+Router&qid=1670382641&prefix=hosaya+4g+lte+usb+wifi+modem+portable+4g+router+%2Caps%2C130&sr=8-1](https://www.amazon.com/HOSAYA-Portable-Hotspot-Unlocked-88mmx28mmx9mm/dp/B0B593MOXN/ref=sr_1_1?crid=5GYQH09DZC4D&keywords=HOSAYA+4G+LTE+USB+WiFi+Modem+Portable+4G+Router&qid=1670382641&prefix=hosaya+4g+lte+usb+wifi+modem+portable+4g+router+%2Caps%2C130&sr=8-1)

Doug Dodgen

9:12 PM

<https://devedge.t-mobile.com/solutions/iotdevkit>

Carl Ott

9:13 PM

<https://www.freedompop.com/assist> --> way to get a minimal level of data and S<S

ed mart

9:16 PM

Freedompop

Carl Ott

9:25 PM

~9:25pm - John K showed more 2-wheel balancing robot videos

John Kuhlenschmidt

9:30 PM

<https://www.youtube.com/watch?v=gKx6vOmW4rE>