

DPRG RBNV – March 7, 2023

Carl Ott

7:42 PM

~7:40pm - Ray showed a recent acquisition- a hover board that runs on 32v - which he'll use as a platform for something.

Carl Ott

7:50 PM

Ray also mentioned some upcoming ST Micro presentation / training sessions - links follow.

Ray Casler

7:50 PM

https://www.st.com/content/st_com/en/about/events/upcoming-events-and-technical-seminars.html?mkt_tok=ODU2LVBWUC03MTUAAAGKWyJsSa4X9AmYmJwCluaoSVMfMFbn1nZj9X4UIUV6dp5tX7u7XQlgJIQVAdQ4PPiQsjNGkUieaXimFlrrVkcV7G05uTSA6AF5YwMuE5ttHzM

Carl Ott

7:56 PM

~7:55pm - Pat showed progress from last week - working on speed measurements for the little yellow motors. Pat showed that he obtained motors WITH condensers. And is working on encoder software.

Guys - just a reminder - I must hop on a work call for a little bit - hopefully 30 min or less. Meanwhile - this is the queue after Pat....

Ted Mike W Doug (when Karim is on) Carl.

Doug P.

8:05 PM

pjrc's encoder library: https://www.pjrc.com/teensy/td_libs_Encoder.html

Pat Caron

8:28 PM

<https://forum.micropython.org/viewtopic.php?t=12277&p=66659>

Carl Ott

8:36 PM

~8:33pm - Ted showed progress with his 6-wheeled robot - 4 motors / 6-wheel drive

Carl Ott

9:02 PM

~9:02pm - Mike W showed a demo of his 6-can robot progress.

Carl Ott

9:04 PM

His Mecanum wheel robot is doing pretty well! -> GOLD STAR for Mike W!

Carl Ott

9:05 PM

about 7" square - using BLE Sense

using old 9g servos for motors and grippers

Carl Ott

9:07 PM

no motors or feedback on motors - just measuring seconds of power - and noticing that is very sensitive to battery voltage. Ted suggested others have voltage sensors to provide calibration factor mapping.

Using the IMU to keep heading straight - with each wheel having its own PI loop

Carl Ott

9:13 PM

~9:12pm - Doug shared info about Pololu releasing an Rpi-2040 version of their little robot.

Carl Ott

9:14 PM

Here's a link to this pre-release version: <https://www.pololu.com/category/300/3pi-plus-2040-robot>

Pat Caron

9:15 PM

rp2040 PIO encoder code that supposedly works https://github.com/peterhinch/micropython-samples/blob/master/encoders/encoder_rp2.py

Doug P.

9:15 PM

SW radio: <https://community.element14.com/e14/assets/main/ebooks/exploringsdredreBook.pdf>

2022 Robot handbook: https://wtwh-marketing.s3.amazonaws.com/ebooks/DW_ROBOTICS-HANDBOOK-2022.pdf

Carl Ott

9:18 PM

Doug also showed RS Design Spark software - now with interesting options: <https://www.rs-online.com/designspark/subscriptions-pricing-page>

Doug P.

9:24 PM

how to change stl to step file: <https://www.youtube.com/watch?v=qC0Mv9yVXps>

Carl Ott

9:28 PM

~ 9:25pm Carl showed a Cool looking new Device Energy harvesting IoT module – no battery needed

<https://www.geeky-gadgets.com/internet-of-things-07-03-2023/>

"Our Riotee Module is the heart of the product line. It integrates energy harvesting, energy storage, power management, non-volatile memory, a powerful Cortex-M4 processor, and a 2.4-GHz, BLE-compatible radio into a tiny module with the footprint of a postage stamp. Solder it to a PCB full of sensors, peripherals, and whatever else you need for your application. Add a solar panel, and you have a fully functional, battery-free device!"

Carl Ott

9:32 PM

carl.ott.jr@gmail.com

ed mart

9:36 PM

Popular with car parts

Carl Ott

9:37 PM

~9:36pm - Harold showed his plasma D20 die display thing -

Carl Ott

9:41 PM

used a plasma display.

Carl Ott

9:43 PM

Harold also showed progress on his very small / inexpensive robot.

Carl Ott

9:44 PM

a small balancing robot

Harold Pulcher

9:46 PM

<https://components101.com/modules/mx1508-dc-motor-driver-pinout-features-datasheet>

Pat Caron

9:59 PM

Great topics tonight! See you next week.

Harold Pulcher

Post Meeting

Dronebot YouTube video on motor controllers (compares MX1508 and TB6612FNG):

<https://www.youtube.com/watch?v=ygrslqWOH3Y>