

DPRG RBNV Chat Record – Feb 6, 2024

Jack

7:58 PM

I like the every other week meeting idea!

Mike Williamson

7:59 PM

I like the idea to alternate in person meetings at different maker spaces. This could increase our exposure for new members too

Tom C - Hamilton, ON

8:00 PM

+1 for remote access to in person meetings, thanks. I know of 2 groups that moved from virtual meetings to hybrid meetings, without too much problem. A bit of extra effort, depends on facilities at the in-person meeting site...

Mike Williamson

8:01 PM

even remotees could host a hybrid meeting in their local town.

Carl Ott

8:06 PM

chat notes - meeting started out with club housekeeping discussions - constraints around DPRG volunteering to judge at certain FTC competitions - and then around DPRG meeting concerns - ideas and feedback for where to have in person meetings and how to best facilitate support for virtual participants.

Carl Ott

8:08 PM

note - Pat and Ted both placed explicit support to continue the Tuesday night meetings and additionally to add in the Saturday sessions

Several other points were raised regarding things which help or hurt hybrid meetings.

Tom C - Hamilton, ON

8:09 PM

Next Connecticut Robotics hybrid meeting is Mar 10. <https://ctrobots.wordpress.com/news-events/>

ed mart

8:10 PM

<https://ctrobots.wordpress.com/news-events/>

Carl Ott

8:11 PM

I'd like to propose that for Hybrid meetings - we define a role / not a scribe - but more like a 'virtual participant on-site rep'. This person would be the designated 'voice of the virtual participant' in the meeting room - and would act like a sportscaster and local proxy for virtual people...

Tom C - Hamilton, ON

8:17 PM

Ottawa Maker / Robotics group: watch the calendar for updates. Also ask to join the email list for more timely updates. <https://hack613.com/events/> (Ottawa no longer has a Makerspace, which was the focus of this website at one time).

Carl Ott

8:18 PM

Queue Mike Ray Jon Steve E Doug P Harold Open Mic Carl – totally off robot AI item / open mic

Tom C - Hamilton, ON

8:18 PM

Vancouver no longer has a website or email, but uses Meetup for communications and meeting notices:

<https://www.meetup.com/vancouverroboticsclub/>

Seattle Robotics club website and calendar: <https://seattlerobotics.org/calendar/>

Carl Ott

8:19 PM

~8:16pm - Mike gave an update on some sensors he's looked at - starting with a time-of-flight camera running blob detection

Carl Ott

8:21 PM

GOLD STAR for Mike -! Showed a live depth camera demo with tele-op robot looking at an orange can.

Carl Ott

8:25 PM

Some kind of star for the club! Real time code debugging -of vision processing pipeline > SUCCESS

Carl Ott

8:29 PM

used the VL53L5 8 x 8 time of flight sensor - using a set of 3.

3 such sensors

Carl Ott

8:33 PM

~8:31pm - Mike also showed - using ROS in Python. Addressing sensors by ID.

Jon Hylands

8:33 PM

```
jon@jon-desktop:~/dev/depthai$ ls -l /dev/serial/by-id/ total 0 lrwxrwxrwx 1 root root 13 Feb 6 21:31 usb-OpenMV_OpenMV_Virtual_Comm_Port_in_FS_Mode_366231603333-if00 -> ../../ttyACM0
```

Carl Ott

8:37 PM

~8:36pm - Mike also worked on a BNO055 / could not get any of his systems to detect it. needs to return it. Did order another BNO055 and BNO085 - both work. the BNO055 connected rock solid on his RPi, but the BNO085 seemed to have a flakier connection - at least using I2C.

Jon H described better success using UART.

Mickey Dean

8:39 PM

QWIIIC?

Carl Ott

8:41 PM

~8:41pm Mike showed his robot / mechanical preso

Carl Ott

8:44 PM

~8:43 - Ray showed a video of his can-can robot (same platform since 2015). Ray's updated sensors Described an approach for this season - trying to use wall following to return the can to the intended goal.

GOLD Star (GOLD STAR) for Ray - video of robot grabbing cans...

Carl Ott

8:50 PM

Jon Steve E Doug P Harold Open Mic

~8:50pm - Jon showed two robots working on - 1st is a RoboMagellen robot / based on an R/C Rock Crawler

Carl Ott

8:52 PM

Also showed a small roll-around table-top robot / inspired by David Anderson - uses little brushless motors for wheels.

ed mart

8:56 PM

Question?? Does RC chassis front steering axle, self-center naturally? Spring loaded? Or how is steering angle controlled?

Carl Ott

8:56 PM

~8:56pm Jon showed a video explaining gimbal motor control.

Jack

8:57 PM

I'm going to go. See you all next week :)

Mickey Dean

8:58 PM

Jon, are you willing to share you channel link?

Carl Ott

8:59 PM

Jon uses encoders on his brushless gimbal motor, with 12-bit encoders, like 4,000 pulses per revolution. And since it's a brushless gimbal motor - he should experience no gear lash...

Carl Ott

9:04 PM

Jon also showed a Grove Vision AI2 vision board - with neural chip - can run inferencing models... just \$16...

on Hylands

9:09 PM

https://www.aliexpress.com/item/1005005866301316.html?spm=a2g0o.order_list.order_list_main.119.3bd31802l4kzzq

https://www.aliexpress.com/item/32929665214.html?spm=a2g0o.order_detail.order_detail_item.3.b6a0f19crxaR9C

Carl Ott

9:11 PM

reminder - upcoming queue is

Jon Steve E Doug P Harold Open Mic

Carl Ott

9:18 PM

~9:15pm - Steve E - getting back into robot building practice - setting up CAN / CAN bus communication. Set up a 6 foot section of cAT6 w/ DB9 connector & 120 ohm resistor ...showed Arduino code to watch for messages

Carl Ott

9:21 PM

Steve showed initialization errors and asked for feedback / what's going on / bad device or what....

Doug P.

9:21 PM

Can Demo/instruction: <https://how2electronics.com/interfacing-mcp2515-can-bus-module-with-arduino/>

Pat C

9:27 PM

<https://www.dprg.org/monthly-meeting-june-9th-2018/>

Carl Ott

9:28 PM

2018 June 9 - CAN BUS presentation - <https://www.dprg.org/monthly-meeting-june-9th-2018/>

Pat C

9:29 PM

site:dprg.org can-bus

Mickey Dean

9:29 PM

Jon, is your video channel public?

Jon Hylands

9:30 PM

<https://www.youtube.com/@JonHylands/videos>

Jon Hylands

9:30 PM

Thanks

I have a blog as well, that I've just started updating - <https://jons.page/>

Carl Ott

9:31 PM

~9:30pm - Steve asked about using USB2CAN - PCAN view - setting it up to monitor and inserting CAN messages.

Carl - totally off topic item / AI plugins for Audacity to isolate different parts of audio recordings, e.g. voice, percussion, background noise, etc....

Jon - at some point - I'd like to ask about your RoboMagellan robot - specifically - you mentioned a ~ 2100 KV brushless motor into a gearbox. SO I wonder if you have an encoder on that one - if so - where in the drive chain and what kind of resolution / maybe also part numbers...

Carl Ott

9:41 PM

~9:37pm - Doug - building a kit - with Uxcell push clip rivet 3mm x 6.6mm PCB Circuit Panel Nylon fastener - black 200 pcs - a very handy fastener vs. screws and nuts <https://www.amazon.com/uxcell-Rivet-6-6mm-Circuit-Fastener/dp/B07RGKNKGH>

Pat C

9:43 PM

Will the Saturday meeting be on Google Meet?

Carl Ott

9:46 PM

Pat / I kind of meant to make that happen - but totally neglected to setup calendar stuff -it will be the same meeting link as we use for Tuesday nights...

Doug - by chance can you post the Saturday 10 Feb meeting at dprg.org?

Carl Ott

9:49 PM

~9:41pm - Harold offered up a "BEACN MIX" - purchased a while back but has no use for it / got the larger bigger version. provides audio mixing...

Carl Ott

9:54 PM

~9:53pm - John K showed a Polar CNC plotter <https://www.instructables.com/Polar-CNC-Plotter/>

Carl Ott

9:58 PM

John also showed sources for eclipse glasses.

Carl Ott

10:00 PM

~9:59pm Jon showed - concept for maybe turning his tabletop robot into a six-can robot.

Carl Ott

10:08 PM

Carl - totally off topic item / AI plugins for Audacity to isolate different parts of audio recordings, e.g. voice, percussion, background noise, etc.... <https://www.musicradar.com/news/audacity-free-ai-plugins>

Pat C

10:08 PM

Good meeting tonight. See you on Saturday.

Jon Hylands

10:12 PM

<https://www.aliexpress.com/item/1005006051651136.html>

Make sure you choose the 405 variant.

Ray Casler

10:17 PM

<https://wiki.sipeed.com/hardware/en/maixsense/maixsense-a010/maixsense-a010.html>

Carl Ott

10:29 PM

~10:29- Jon showed a custom wireless failsafe for RoboMagellan platforms.

Carl Ott

10:34 PM

Motto of the night: "If it's worth doing, it's worth overdoing."