# DPRG RBNV Chat Record – June 18, 2024

00:02:36.457,00:02:39.457
Carl Ott: 7:38pm - Nelson introduced himself, explained how found the club & what he is looking for.

00:05:20.317,00:05:23.317
Carl Ott: Reminder - This Saturday 22 June - Monthly Meeting - Presentation by Bob Cook- how to train AI to detect traffic cones.  10 am Central - https://www.dprg.org/using-ai-for-traffic-cone-detection/

00:07:17.613,00:07:20.613
Ponder SomeMore: https://www.mcmaster.com/products/flexible-heat-shrink-tubing/

00:10:29.042,00:10:32.042
Carl Ott: https://warther.org/

00:11:41.479,00:11:44.479
Carl Ott: https://warther.org/Carvings.php

00:11:59.699,00:12:02.699
Paul Bouchier: This is the flexible heatshrink: https://www.mcmaster.com/products/flexible-heat-shrink-tubing/continuous-flex-abrasion-resistant-heat-shrink-tubing/

00:12:23.882,00:12:26.882
Ponder SomeMore: scrimshaw

00:12:59.420,00:13:02.420
Carl Ott: yeah -scrimshaw - cool stuff

00:25:28.729,00:25:31.729
Ray Casler: Kim Kardasian capacitor?

00:28:48.833,00:28:51.833
Paul Bouchier: Jon Hylands showed an updated CAD model of his balancing 'bot, and walked through the schematic and PCB design in KiCad

00:40:40.896,00:40:43.896
Paul Bouchier: Jon showed the 3D-printed frame, and motors with hall-effect quadrature encoders that he assembled out of parts on hand

00:43:27.226,00:43:30.226
Paul Bouchier: He showed a web page for an Arduino Nicla Vision camera, from OpenMV. It has and ESP32 on board, and the board designer made a library that does OpenCV-type operations, which runs on the ESP32. So it's a tiny depth sensor + smart camera

00:44:19.953,00:44:22.953
Jon Hylands: https://openmv.io/products/arduino-nicla-vision

00:44:50.567,00:44:53.567
Jon Hylands: VL53L1CBV0FY/1

00:45:08.923,00:45:11.923
Jon Hylands: https://docs.openmv.io/library/omv.image.html

00:45:40.065,00:45:43.065
Paul Bouchier: The camera has an 8x8 ToF sensor as well as the camera.

00:45:41.516,00:45:44.516
Mike Williamson: Sensors:

    2 MP Color Camera
    6-Axis IMU (LSM6DSOX)
    Distance / Time Of Flight sensor (VL53L1CBV0FY/1)
    Microphone (MP34DT05)

00:45:55.088,00:45:58.088
Mike Williamson: Sensors:

    2 MP Color Camera
    6-Axis IMU (LSM6DSOX)
    Distance / Time Of Flight sensor (VL53L1CBV0FY/1)
    Microphone (MP34DT05)

00:46:21.323,00:46:24.323
Paul Bouchier: The library above can read april tags, QR codes, etc

00:48:42.815,00:48:45.815
Pat Caron: My wife got my trophies also.

00:49:19.876,00:49:22.876
Paul Bouchier: Thanks to Doug P for cutting the Roborama trophies, which
have arrived in Canada winners.

00:52:11.404,00:52:14.404
Paul Bouchier: OpenMV has the ability to run models, as well as run OpenCV
stuff.

00:54:06.049,00:54:09.049
Mike Williamson: the VL53L1 sensor can be configured to 4x4.

00:55:23.277,00:55:26.277
Paul Bouchier: The camera is tiny - 1-inch square

00:56:58.843,00:57:01.843
Nelson Ruiz: Jon, I thought that was really cool.

00:57:19.128,00:57:22.128
Jon Hylands: Thanks

01:02:20.157,01:02:23.157
ed mart: Seeduino connectors

01:02:58.748,01:03:01.748
Paul Bouchier: Tom C showed his work seeking a motherboard that enhances
an RPi Pico to add a bunch of I/O to make RPi Pico comparable to an
Arduino Uno R3 in terms of I/O, voltage, I2C etc

01:05:24.856,01:05:27.856
Paul Bouchier: Tom has built a dev board of his own design. He showed it
with buttons, OLED display, rotary encoder, level conversion, etc.

01:05:44.342,01:05:47.342
ed mart: Correction grove connectors
Check out maker pi RP2040

01:14:43.435,01:14:46.435
Jon Hylands: https://forum.micropython.org/viewtopic.php?t=12277

01:15:17.776,01:15:20.776
Paul Bouchier: Tom chose Pico over ESP32 on account of having more I/O,
albeit having a somewhat slower processor clock rate

01:15:31.777,01:15:34.777
Mike Williamson: I like micro-coding the RP2040 PIO :)

01:19:29.747,01:19:32.747
Mike Williamson: Arduino has some libraries that utilizes the PIO for
motors and encoders etc.

01:20:09.077,01:20:12.077
Jon Hylands: https://github.com/JonHylands/balanceDroid

01:21:00.436,01:21:03.436
Mike Williamson: C-coded libraries for Python makes the code fast

01:32:18.756,01:32:21.756
Ponder SomeMore: https://github.com/zadam/trilium

01:34:10.645,01:34:13.645
Mike Williamson: good night, it got late on East coast...

01:37:53.244,01:37:56.244
Ponder SomeMore: trilium is supported on windows.

01:37:55.119,01:37:58.119
Ponder SomeMore: https://github.com/zadam/trilium/releases/tag/v0.63.7

01:46:32.701,01:46:35.701
Ponder SomeMore: spirals rule

01:49:08.113,01:49:11.113
Ponder SomeMore: yeah, but you can't start a fire with it

01:54:01.624,01:54:04.624
Doug Dodgen: Got to go.  See you next time?

01:55:10.979,01:55:13.979
Pat Caron: I have to go also.  See you on Saturday!

01:55:56.146,01:55:59.146
Nelson Ruiz: Same here, I got to go as well.

02:01:13.305,02:01:16.305
Ponder SomeMore: https://www.marginallyclever.com/products/robot-overlord/

02:01:30.936,02:01:33.936
Ponder SomeMore: he kinda compares it to game engines

02:02:03.105,02:02:06.105
Ponder SomeMore: nite nite