

DPRG RBNV Chat Record – 7/20/21

Chat

Carl Ott

7:42 PM

~7:40 - Pat talking about his robot platform. Uses MQTT as mechanism to pass data between threads/processes (or cores?).

in Python

Rajshekar Prabhakar

7:46 PM

What is the outdoor contest on 21st Aug ? is there a link?

Doug Dodgen

7:47 PM

Carl will be discussing the outdoor contest in a bit.

doug paradis

7:48 PM

Outdoor competition link: <https://www.dprg.org/robocolumbus-competition-2021/>

Robots New Zealand

7:53 PM

<https://robots.org.nz/2020/05/19/four-corners/>

Carl Ott

8:00 PM

up to ~ 7:58, discussed detecting objects via a range of color - and concept of converting image from RGB space to HSV, then selecting colors based on a range of hue values - to better detect an object in varying lighting conditions.

John Gauthier

8:04 PM

How to install open CV in a python virtual environment: * Update O/S to latest. sudo apt-get update sudo apt-get dist-upgrade * Install pre-requisite libraries. sudo apt-get install libhdf5-dev libhdf5-serial-dev libhdf5-103 sudo apt-get install libqtgui4 libqtwebkit4 libqt4-test python3-pyqt5 sudo apt-get install libatlas-base-dev sudo apt-get install libjasper-dev * Install latest version of pip.

wget <https://bootstrap.pypa.io/get-pip.py> sudo python3 get-pip.p

doug paradis

8:05 PM

openCV install from pyimagesearch: <https://www.pyimagesearch.com/2019/09/16/install-opencv-4-on-raspberry-pi-4-and-raspbian-buster/>

Carl Ott

8:19 PM

~8:18 John talking about current sense on his custom motor driver board

Carl Ott

8:23 PM

an approach to detect stalls - subject to limited PIC controller resources

Carl Ott

8:25 PM

a 16 bit PIC at 32 MHz

Carl Ott

8:28 PM

~8:26 Doug P. showing image with colors showing depth data - running on a Pi

Carl Ott

8:30 PM

~8:29 - Auto Resetting Breaker by Rev Robotics

Carl Ott

8:31 PM

and REV Robotics Power Distribution Hub

Carl Ott

8:33 PM

here's a 15A 14 VDC automotive (T1) auto-resetting circuit breakers - on Amazon for \$6

[https://smile.amazon.com/GLOSO-Reset-Profile-Circuit-](https://smile.amazon.com/GLOSO-Reset-Profile-Circuit-Breakers/dp/B07ZOT3KYR/ref=sr_1_4?dchild=1&keywords=auto+resetting+circuit+breaker&qid=1626831173&sr=8-4)

[Breakers/dp/B07ZOT3KYR/ref=sr_1_4?dchild=1&keywords=auto+resetting+circuit+breaker&qid=1626831173&sr=8-4](https://smile.amazon.com/GLOSO-Reset-Profile-Circuit-Breakers/dp/B07ZOT3KYR/ref=sr_1_4?dchild=1&keywords=auto+resetting+circuit+breaker&qid=1626831173&sr=8-4)

Carl Ott

8:35 PM

also available in 5A, 6, 7.5, 10, 15, 20, 25, 30A

Kelly - did you raise your hand to say you lived near the exploded house in Plano, or a different comment?

Carl Ott

8:36 PM

~ 8:34 Doug P. showing Doug V2 robot doing odometry

Carl Ott

8:38 PM

~8:37 Doug P. discussing strategy for sensors & obstacle avoidance. What's the best technique - asking group opinions

Harold Pulcher

9:03 PM

<https://www.meetup.com/Hackster-DFW/events/279443776/>

hackster=dfw meetup

hackster-dfw

doug paradis

9:10 PM

Interesting magnetic calibration link: <https://learn.adafruit.com/adafruit-sensorlab-magnetometer-calibration/magnetic-calibration-with-motioncal>

Carl Ott

9:12 PM

~9:01 - Ray talking about a cutie pi and BNO

Carl Ott

9:14 PM

discussed BNO IMU calibration issues for 10 or 15 minutes..

Carl Ott

9:21 PM

~ 9:15 John talking about issues trying to seal an outdoor enclosure with a Pi and a camera inside, so that it does not collect moisture and fog, or overheat in the summer heat, or collect water inside

Carl Ott

9:33 PM

link to DPRG email list <https://www.dprg.org/mail-list/>

Harold Pulcher

9:39 PM

<https://www.meetup.com/Hackster-DFW/events/279443776/>

Carl Ott

9:42 PM

Harold listed a Hackster Meetup tomorrow night - 1st hybrid meeting in person / online. link listed at 9:39 Meetup will include a presentation of his copy of an ExoMy robot - for those not familiar - the ExoMy started from

this https://www.esa.int/Enabling_Support/Space_Engineering_Technology/3D_print_your_own_Mars_rover_with_ExoMy

Carl Ott

9:45 PM

ALSO - the two authors of the ExoMy project presented to DPRG in May - a copy of the recording is available on YouTube in the DPRG Clips channel <https://www.youtube.com/watch?v=MtUJTEiZoI0>

Carl Ott

9:58 PM

~9:56 Murray - update on new parts received, and a couple of projects in work

Carl Ott

10:06 PM

~10:06 - John K found a Pet Monitoring Robot on Instructables

pet monitoring robot <https://www.instructables.com/Arduino-and-Raspberry-Pi-Powered-Pet-Monitoring-Sy/>

Robots New Zealand

10:09 PM

KROS-Core Robot OS <https://github.com/ifurusato/kros-core>