DPRG RBNO Chat Log – 03/01/2020

00:00:53.254,00:00:56.254
Ponder SomeMore: can everyone self mute

00:02:24.048,00:02:27.048
Carl Ott: Doug D- Cool to hear about OpenCV - We have several memebers who have found great advice & Learning from Pi Image Search

00:03:02.131,00:03:05.131
Doug Dodgen: www.PyImageSearch.com

00:04:42.115,00:04:45.115
Carl Ott: Welcome Robert and Sourabh!

00:05:36.033,00:05:39.033
Carl Ott: We're going around the room, talking about our projects in the last week.

00:06:47.044,00:06:50.044
Carl Ott: after that, we're going to talk about our upcoming September meeting, but then also a potential Nove contest. We're talking about hosting a line following contest, where virtual robots run in a simulator.

00:07:49.483,00:07:52.483
Carl Ott: Doug P is talking about the simulator now. The simulator was written by DPRG member Ron Grant. At least two other members have been playing with it. It's meant to be very accessible- as it's written in Processing

00:08:35.399,00:08:38.399
Ray: Donna - are you looking for opencv blob detection routines?

00:12:21.671,00:12:24.671
Carl Ott: This is the base code of the Line Following Simualtor

00:12:26.741,00:12:29.741
Carl Ott: https://github.com/dprg/LineFollowerSimulation

00:15:12.090,00:15:15.090
Donna: Hi Ray, Actually no on my interest use of OpenCV for blob detection.. I am more interested in higher level image processing algorithms and ML.

00:22:30.946,00:22:33.946
Chris N: Jian - check out CoppeliaSim. https://www.coppeliarobotics.com/

00:23:19.797,00:23:22.797
Robots New Zealand: Pololu infrared reflectance arrays

00:23:21.931,00:23:24.931
Robots New Zealand: https://www.pololu.com/search/compare/244

00:30:31.845,00:30:34.845
Carl Ott: I like these motors

00:30:33.303,00:30:36.303
Carl Ott:
https://www.aliexpress.com/item/4000580136112.html?spm=a2g0o.detail.10000
60.3.8e765293vJwRoz&gps-
id=pcDetailBottomMoreThisSeller&scm=1007.13339.169870.0&scm_id=1007.13339
.169870.0&scm-url=1007.13339.169870.0&pvid=0c17a9ec-99e9-4c8d-8016-
079d28295d26&_t=gps-id:pcDetailBottomMoreThisSeller,scm-
url:1007.13339.169870.0,pvid:0c17a9ec-99e9-4c8d-8016-
079d28295d26,tpp_buckets:668%230%23131923%2357_668%23808%233772%23929_668
%23888%233325%235_668%232846%238115%23820_668%232717%237563%23555_668%231
00002218

00:30:45.847,00:30:48.847
Carl Ott:
https://www.aliexpress.com/item/4000122273822.html?spm=a2g0s.9042311.0.0.
40604c4dZI1hMf

00:30:52.375,00:30:55.375
Robots New Zealand: OSEPP https://www.osepp.com/accessories/motors

00:31:27.670,00:31:30.670
Robots New Zealand: Pololu Romi

00:31:30.127,00:31:33.127
Robots New Zealand: https://www.pololu.com/category/202/romi-chassis-and-
accessories

00:40:31.787,00:40:34.787
Carl Ott: Robert - looks like you have something cool in the side of the
picture - are you up for introducitng yourself and talking about your
project?

01:00:19.687,01:00:22.687
Harold Pulcher: how is that for my luck? I am gonna get rid of my Robie
Sr. and we have person show up with a real Johnny 5!!!

01:01:57.665,01:02:00.665
Carl Ott: Harold - always a bigger fish in the sea

01:08:40.600,01:08:43.600
Ponder SomeMore: two modicums please

01:08:49.710,01:08:52.710
Ponder SomeMore: modica?

01:08:59.716,01:09:02.716
Harold Pulcher: modicia?

01:09:17.715,01:09:20.715
Harold Pulcher: modicas?

01:09:25.347,01:09:28.347
Harold Pulcher: ? :)

01:09:45.142,01:09:48.142
Carl Ott: Multiple IMU's on the same robot? My dad would say you've got the same problem as the guy in the clock shop. He/she would have dozens of clocks, and not a clue as to what time it really was...

01:11:22.948,01:11:25.948
Ponder SomeMore: always do the boring stuff first

01:13:19.795,01:13:22.795
Robots New Zealand: https://github.com/ifurusato/ros/

01:14:27.423,01:14:30.423
Doug Dodgen: Want it

01:14:39.121,01:14:42.121
Carl Ott: Thanks Murray - that was Code for the IMU

01:14:51.999,01:14:54.999
sourabh sharma: 🤚

01:17:22.924,01:17:25.924
Robots New Zealand: Carl, I've got two IMUs only so long as I'm using one to compare with the other. The intention is to settle on one, either the BNO055 or the NXP9DoF
https://www.adafruit.com/product/3463. using the nxp_imu python library
https://pypi.org/project/nxp-imu/

01:18:02.457,01:18:05.457
Robots New Zealand: The actual code starts with compass_test.py, using lib/compass.py and lib/bno055.py

01:18:03.713,01:18:06.713
Ponder SomeMore: Doug D. to get familiar with OpenCV, try playing around with some interactive vision pipeline builders. Here's one our team uses.

01:18:11.084,01:18:14.084
Ponder SomeMore: https://docs.wpilib.org/en/stable/docs/software/vision-processing/grip/introduction-to-grip.html

01:19:10.068,01:19:13.068
Carl Ott: Harold - tons of cool stuff tonight! - thanks for the lead on "Lever Nut Connectors" - did you find a better source than this?
https://www.amazon.com/WMYCONGCONG-Assortment-Conductor-Compact-Connectors/dp/B07XBKRXMJ/ref=asc_df_B07XBKRXMJ/?tag=hyprod-20&linkCode=df0&hvadid=385182567079&hvpos=&hvnetw=g&hvrand=7534070022816117884&hvpone=&hvptwo=&hvqmt=&hvdev=c&hvdvcmdl=&hvlocint=&hvlocphy=9026796&hvtargid=pla-890700184727&psc=1&tag=&ref=&adgrpid=80210700644&hvpone=&hvptwo=&hvadid=385182567079&hvp

01:21:06.923,01:21:09.923
Carl Ott:
https://www.amazon.com/gp/product/B00EXCUHJU/ref=ppx_yo_dt_b_search_asin_title?ie=UTF8&psc=1

01:21:36.391,01:21:39.391
Carl Ott:
https://www.amazon.com/dp/B072BY4XZ7/ref=sspa_dk_detail_2?psc=1&pd_rd_i=B072BY4XZ7&pd_rd_w=OPRIo&pf_rd_p=48d372c1-f7e1-4b8b-9d02-4bd86f5158c5&pd_rd_wg=M0MEb&pf_rd_r=1NX4Q044ZAGS0S3MZXDD&pd_rd_r=c04c96a3-c1c9-4f28-89db-097ae8a333dc&spLa=ZW5jcnlwdGVkUXVhbGlmaWVyPUFCSU9aMVNTNDZENEomZW5jcnlwdGVkSWQ9QTA2NTY0NTMzQUNJUllXTFY3SFBYJmVuY3J5cHRlZEFkSWQ9QTAzMTg2NTYxUkk2UldCUUg3OVdJJndpZGdldE5hbWU9c3BfZGV0YWlsJmFjdGlvbj1jbGlja1JlZGlyZWN0JmRvTm90TG9nQ2xpY2s9dHJ1ZQ==

01:22:14.899,01:22:17.899
Ponder SomeMore: i love millithings

01:25:50.183,01:25:53.183
Ponder SomeMore: and impossible to unplug

01:26:04.373,01:26:07.373
Robots New Zealand: Dean's connectors
https://www.rchobbies.co.nz/deans-t-connector-plugs-2-x-pairs-with-covers/

01:26:09.569,01:26:12.569
Robert Rodgers: Dean's connectors?

01:27:51.712,01:27:54.712
doug paradis: My favorite battery connector is the XT60.

01:28:05.998,01:28:08.998
David: yes, Deans. Ultra plug and Micro plug

01:28:28.752,01:28:31.752
Carl Ott: You can find Deans terminated or not - here are some terminated ones on Amazon https://smile.amazon.com/Pairs-Connector-Female-Silicon-Battery/dp/B07WHPD4KD/ref=sr_1_2_sspa?crid=K22FCUQFP1VL&dchild=1&keywords=deans+connector&qid=1599012132&sprefix=deans%2Caps%2C227&sr=8-2-spons&psc=1&spLa=ZW5jcnlwdGVkUXVhbGlmaWVyPUEzTEsyOVdRMTk4SEhWJmVuY3J5cHRlZElkPUEwNjE5MTU0MTZVNzJWRVlFQ0lHOCZlbmNyeXB0ZWRBZElkPUEwNjEwODg0MUpGWVBXRlgzN0pQTCZ3aWRnZXROYW1lPXNwX2F0ZiZhY3Rpb249Y2xpY2tSZWRpcmVjdCZkb05vdExvZ0NsaWNrP

01:29:14.300,01:29:17.300
Robert Rodgers: stepping away for a few

01:29:41.266,01:29:44.266
Robert Rodgers: J5 has his own facebook page @heyjohnny

01:30:22.065,01:30:25.065

Harold Pulcher: The lever wires I had:
https://www.amazon.com/gp/product/B07XBKRXMJ/ref=ppx_yo_dt_b_asin_title_o00_s00?ie=UTF8&psc=1

01:30:55.702,01:30:58.702
Harold Pulcher: The mounts:
https://www.amazon.com/gp/product/B082NMYTV5/ref=ppx_yo_dt_b_asin_title_o00_s00?ie=UTF8&psc=1

01:31:41.340,01:31:44.340
Carl Ott: XT60 - many of us use those - also teh 2016 Club Robot - some of those - especially the cheaper ones tend to melt when you try to solder them. But if you are careful with soldering - you can get good prices https://smile.amazon.com/Connectors-Replace-Battery-Builder-Hobbyist/dp/B081MQNGR1/ref=sr_1_1_sspa?dchild=1&keywords=XT60&qid=1599012203&sr=8-1-spons&psc=1&spLa=ZW5jcnlwdGVkUXVhbGlmaWVyPUFMUjJVTTBRQjZaNkgmZW5jcnlwdGVkSWQ9QTAyNTg4ODMyN1FINERNQ0ZBSFpGJmVuY3J5cHRlZEFkSWQ9QTA3OTQxOTkzSjNVT1ROOV

01:31:41.620,01:31:44.620
Ponder SomeMore: didn't see that coming

01:31:55.216,01:31:58.216
Harold Pulcher: Hey Doug D, send me an email...
pulcher@killercomputing.com

01:32:54.133,01:32:57.133
Ponder SomeMore: that's a heavy face shield

01:35:44.973,01:35:47.973
Harold Pulcher: that 5 volt buck I had:
https://www.pololu.com/product/2851

01:36:48.917,01:36:51.917
Carl Ott: here is a sample reset/enable voltage controller
https://www.adafruit.com/product/3428

01:38:01.061,01:38:04.061
Carl Ott: those things come in different flavors, to trip at different voltage points. You tie the output into the reset circuit - they have hysteresis - and they force the circuits to reset cleanly

01:38:45.187,01:38:48.187
Harold Pulcher: got nothing better todo? join me on twitch
https://www.twitch.tv/haroldpulcher

01:39:07.679,01:39:10.679
Harold Pulcher: yeah, shameless self-promotion.... :)

01:42:10.720,01:42:13.720
Carl Ott: LOL - we fully support shameless self-promotion - just ask any of us ;-)

01:49:06.364,01:49:09.364
David: Robot wheel odometry theta rate vs. z-axis rate gyro rate:

01:49:11.712,01:49:14.712
David: http://www.geology.smu.edu/dpa-www/robo/rcat/wheel_and_gyro_theta_rate.png

01:52:55.221,01:52:58.221
sourabh sharma: It’s cool

01:55:25.491,01:55:28.491
sourabh sharma: Does this simulation accommodate environmental factors like sunlight interference with IR sensors ?

01:55:28.649,01:55:31.649
Robots New Zealand: https://www.coppeliarobotics.com/downloads

01:55:39.786,01:55:42.786
Robots New Zealand: https://www.coppeliarobotics.com/

01:55:55.135,01:55:58.135
7 photons: I've got to go, have a good week

01:56:41.453,01:56:44.453
Carl Ott: Chris - please email me at carl.ott.jr@gmail.com -> we can coordinate some month at your convenience to present the simulation environment you were showing - we're always open for cool topics like this. And w'ere an easy audience - presentations can be very formal ;-)

01:56:50.799,01:56:53.799
Carl Ott: excuse me- very informal ;-)

01:56:53.128,01:56:56.128
Carl Ott: not formal

02:06:56.017,02:06:59.017
Carl Ott: Donna - let's chat at carl.ott.jr@gmail.com

02:07:20.383,02:07:23.383
Donna: Donna S.   dsmith164@yahoo.com

02:10:47.812,02:10:50.812
Ponder SomeMore: david you're generating feedback

02:11:00.400,02:11:03.400
Ponder SomeMore: nvm

02:11:16.694,02:11:19.694
David: sorry. thanks

02:13:53.977,02:13:56.977
Ponder SomeMore: sounds cool to me

02:18:52.716,02:18:55.716

Carl Ott: Find the Seattle Robotics Society - here
http://www.seattlerobotics.org/

02:21:09.000,02:21:12.000
Chris N: Murray - I just checked the CoppeliaSim license and it clearly states that Hobbyists are considered an "educational entity"

02:21:09.675,02:21:12.675
Donna: groups.io/g/SeattleRobotics

02:27:06.017,02:27:09.017
Donna: Email list serve - SeattleRobotics@groups.io

02:27:40.985,02:27:43.985
doug paradis:
https://github.com/dprg/Contests/tree/master/Line%20Following%20Simulation

02:55:54.300,02:55:57.300
Robert Rodgers: Need to hear off to bed soon...

02:56:10.005,02:56:13.005
Carl Ott: Robart - thanks for joining - catch you later

02:56:14.434,02:56:17.434
Robert Rodgers: *head

02:59:15.848,02:59:18.848
Robert Rodgers: Alright, great meeting. See ya at the next one. Good night