

DPRG RBNV Chat Record – 10/26/2021

Karim Virani

7:42 PM

Im just listening but prefer spotlight for recordings. To allow folks to react in group but not publicly
Its an incentive to be there live

Jim F - CalgaryAB

7:44 PM

Hello. Just tagging along and sitting on the sidelines.

Carl Ott

7:52 PM

~7:50pm - Ray showed progress on a mower platform - wheelchair motors on 24V. Aluminum mast with
BNO055 and OLED - and a RoboClaw driver and LoRA ESP board.

Carl Ott

7:54 PM

Platform following predetermined pattern using compass and odometry - did well even in grass

Carl Ott

7:57 PM

~7:56- Pat showed latest configuration for motor driver
also working on Free RTOS - and signed up for a 30 hour course on Udemy

Carl Ott

7:58 PM

Free RTOS on an Arduino - via Platform IO

Carl Ott

8:02 PM

Pat mentioned a trick for Udemy - if you find a course you like but it's at full price - make an account, put it
in your cart and ask for updates. At some point, many Udemy courses go on sale with deep discounts.
Hence you can get e.g. a \$125 course for \$16...

Carl Ott

8:04 PM

~8:02 - discussed what it means to run Free RTOS on Arduino.

Thalanayar Muthukumar

8:04 PM

Is this Udemy course by Israel Gbati?

Carl Ott

8:19 PM

~8:17pm- Chris update on bringing more sensors into ROS on his Romi platform - continuation from last
week - and the visualization power of ROS

Pat Caron

8:20 PM

Here is the course I enrolled in at Udemy

<https://www.udemy.com/course/arduino-freertos/?src=sac&kw=freertos>

Carl Ott

8:20 PM

thanks Pat!

Thalanayar Muthukumar

8:23 PM

Thanks Pat

Carl Ott

8:27 PM

~8:23 - Chris showed how ROS can dynamically show how different sensors interact with different objects in an environment - provides a very intuitive view to the strengths and weaknesses of different sensors - and how they compare to one another

Carl Ott

8:30 PM

Built a model of the robot using urdf - e.g. <http://wiki.ros.org/urdf/Tutorials>

Carl Ott

8:51 PM

~8:48pm Murray on the topic of triggering a behavior that would take effect in the future. Refactoring code for a more streamlined implementation. Then demonstrated on the bench - how a robot could be moving forward slowly until an 'optical bumper' triggers

Carl Ott

8:54 PM

~8:53 - progress on 1st Mars Rover chassis (one with 4 wheels)

Carl Ott

8:56 PM

~8:55pm - progress from the personal robotics discord - collaboration between Murry / John G and Alexander - a custom RP2040 based motor controller

Carl Ott

8:57 PM

~8:57 - John G showing progress on the custom RP2040 motor driver board...

Thalanayar Muthukumar

8:57 PM

I have a question to bring to the team. Not something to show though

Carl Ott

8:58 PM

Kumar - cool - now you're in queue :)

Carl Ott

9:13 PM

~9:13 John G- making progress on Halloween Spider... "down to the wire" for testing a leg...

Carl Ott

9:18 PM

~9:15 - David A- a week of reading & thinking...

David Anderson

9:19 PM

Robin Carhart-Harris

Donald Hoffman

Carl Ott

9:20 PM

neuroscientists studying vision. have found if look at cortex where vision happens - most signals are coming from brain, not optic nerve.

You

9:24 PM

Theory that the brain builds / maintains a complex world model, and then relatively small bits of data from e.g. eyes 'come in' and cause the brain to refine its model.

Thinking it could have implications - e.g., today have some giant neural net train with tons and tons of images. Versus maybe should be the other way - perhaps to start with models, and then refine the models

David Anderson

9:25 PM

<https://groups.google.com/g/hbrobotics/c/ZjxeOrVKcOI>

Carl Ott

9:28 PM

thanks David - link to Seattle Robotics Society post about New "Neuron Bursts" ML model. Includes nice summary and references to papers

Carl Ott

9:37 PM

Here's a TED

Interview https://www.ted.com/talks/the_ted_interview_donald_hoffman_has_a_radical_new_theory_on_how_we_experience_reality Donald Hoffman has a radical new theory on how we experience reality

Carl Ott

9:50 PM

~9:47 -> Ray mentioned a special on KERA last night - a guy who studied honey bee behavior - who thought that at least one bee in particular could recognize him as an individual... My Garden of a Thousand Bees <https://video.kera.org/video/my-garden-of-a-thousand-bees-trjhzt/>

Carl Ott

9:55 PM

9:52pm - Kumar - question for opinions. Started on STM32- w/ first Nucleo board. Several questions: 1) people building robots using only 2% of CPU 2) version has flash - but just want to get robot up and running in micro python - but Adafruit supports circuit python 3) not an expert - wants to quickly make something -> what guidance?

Ray Casler

9:56 PM

thanks Carl. I was looking for the link..

Ray Casler

10:05 PM

a cockroach is attracted to disgusting things...

Thalanayar Muthukumar

10:26 PM

Thanks all

Carl Ott

10:26 PM

You Got it Kumar - thanks for such a great prompt!

~10:24 - John K showed a few ready-made projects

Carl Ott

10:28 PM

~10:27 - Doug P showed progress on his bumper

Thalanayar Muthukumar

10:28 PM

I need to drop. Good night

Carl Ott

10:33 PM

~10:32 John K showed one of his robots

Carl Ott

10:36 PM

~10:34 - Glenn M - showed teaching Arduino and related classes on easy to access kits - easy to assemble w/o soldering - Sparkfun tinkerkit (\$50) plus \$20 shadow chassis plus ultrasonic sensor plus 3D printed parts

challenge - get across the makerspace via light sensor - see how far you can get

Chris N

10:43 PM

almost midnight on the east coast... time to go....