DPRG RBNV Chat Record - 2/15/2022

Chris N
7:37 PM

FreeRTOS !!!!!

7 photons
7:43 PM

I'd like one thank you.

Carl Ott
7:47 PM

~7:44pm Pat - success in getting his inter-processor communication working and PID loops working - SHOWED A VIDEO - moving 300 cm forward, needs to work tuning. Managed to get RPi 32 Bit OS and ROS on top - just for his backbone communication. using ~ 30% or 35% resources for ROS. Python in the 5%..7% of CPU utilization... trying to figure out why ROS ore taking so much CPU....

Carl Ott
7:53 PM

~7:51pm Pat showed a Terminator demo - terminator is a cool tool that can let you manage multiple terminal windows on the same screen. Allows you to broadcast commands to all windows or address each one independently. Also lets you store configurations for later reuse... https://bdmpublications.com/use-multiple-terminals-raspberry-pi/

Carl Ott
7:55 PM

~7:54pm - John G gave an update on his face following skull - added a jaw, moving that and the eyes...

Doug Paradis
7:59 PM

Intel seminar (on 2/24/2022) about TensorFlow and OpenVINO - https://software.seek.intel.com/accelerate-model-performance-openvino-webinar

Carl Ott
8:03 PM

~8:02pm - Chris pushing forward on the subsumption architecture implemented on his Romi / ROS platform

7 photons
8:13 PM

I've got to go. See you all Friday.

Ray
8:14 PM

Did he mean Saturday?

Carl Ott
8:16 PM

Ray - yes Jack meant Saturday- he'll present on Saturday 19 Feb.

Carl Ott
8:18 PM

Chris still exploring ways to visualize or record and visualize what is happening on the robot in different situations. Discussed pros and cons - for example ability to play back recorded data into the code at slower than real time to see what is going on - with caveats like you must be careful to avoid using certain

time-related functions in python - you need to stick to functions which are not affected by stepping through code in other than real-time

Ross Murphy
8:29 PM

Some kind of race condition between behaviors?

Ray
8:29 PM

its claustrophobic

Ponder SomeMore
8:31 PM

I'm just listening - microphone detached

Carl Ott
8:32 PM

~8:29pm - lots of discussion about possible causes of Chris's robot 'kind of wobbling' as it navigates itself through a corridor to reach a point where it can turn towards the waypoint...

Carl Ott
8:34 PM

~8:34pm- David Anderson showed a video with similar behavior using his own robot

Carl Ott
8:38 PM

David showed several videos - also which show the simple method to observe behavior transitions and subsumption behaviors - by simply making a real-time recording and then reviewing the video afterwards - stepping through frame by frame if needed

Carl Ott
8:41 PM

~8:38pm - David showed the sonar array from the group buy of robots spearheaded by Karim...

Carl Ott
8:44 PM

Also an analysis of the sonar array geometry, and sensor timings compared to the size, weight, speed and therefore momentum of those platforms - perhaps suggesting how so many of them were damaged - that they may have run into something (hitting the Sonar array) before the obstacle triggered a detection response - just due to inherent system design latencies...

Carl Ott
8:48 PM

note that the group buy was the Pioneer 3-AT https://www.generationrobots.com/media/Pioneer3AT-P3AT-RevA-datasheet.pdf

a robot from some years ago

Carl Ott
8:50 PM

note that Pioneer 3-AT appears to have ROS support

Ross Murphy
8:52 PM

What was the name of that AI Cam?

Carl Ott
8:56 PM

Ross - David briefly showed the OAK-D Lite - which is a Kickstarter perhaps 8 or 10 of us in DPRG fell for, and now have sitting on our shelves. At least we've run the demo code to verify that they

work... https://www.kickstarter.com/projects/opencv/opencv-ai-kit-oak-depth-camera-4k-cv-edge-object-detection

Ray
9:01 PM

Canadian peso

Carl Ott
9:20 PM

~9:17pm- Ray working on his milling machine- improving the resolution by upgrading hardware

Carl Ott
9:22 PM

From 200 steps per revolution to 4,000 steps per revolution...

Carl Ott
9:30 PM

~9:29pm- Chris showed reference data from his Romi - showing CPU utilization for ROS... And Pat observing that when he disabled ROS logging his CPU utilization went way down...