DPRG RBNV Chat Record – Oct 10, 2023

Chris N
7:42 PM
https://www.st.com/en/mems-and-sensors/lsm303dlhc.html

Ted Meyers
7:43 PM
Adafruit lsm303 breakout:
https://www.adafruit.com/product/4413?gclid=Cj0KCQjw7JOpBhCfARIsAL3bobehmpkqFQKvhwdeWbEnpDr3iG6HB1H3hw8T_0TjQga3YKmdVgCFg98aApRlEALw_wcB

Doug P.
7:43 PM
Pat showed his results with a LSM303 IMU. He is getting some promising results with the compass.
He is using the Pololu library.

Doug P.
7:46 PM
He was getting results on his sharp distance sensors that are bouncing around about 10 cm.

Doug P.
7:48 PM
Chris recommended a 10uF capacitor near the sensor pins between Vcc and Gnd. The IR pulse causes variation in values.

Mickey Dean
7:52 PM
Pat, I like that workflow.

Doug P.
7:55 PM
Pat showed how he adds 2 Arduino boards to his Raspberry Pi 4 using the USB ports on the Arduino.

Doug P.
8:06 PM
Ray showed his progress with a microwave radar sensor from DF Robot. He had to search for usable code. Large objects can be detected at 20m.

Doug P.
8:08 PM
Ray discussed his results against various objects.

Pat Caron
8:12 PM
Sorry Doug P, I was so excited about Ray's sensor I interrupted you!

Doug P.
8:15 PM
Ray bought the sensor from Amazon not DFRobot.

Doug P.
8:17 PM
Sensor seems usable under 2 meters on smaller objects.

Doug P.
8:18 PM
Sensor from AliExpress not Amazon.

Pat Caron
8:38 PM
Would that be $10 prize in Canada plus $50 shipping?

Doug P.
8:56 PM
Doug Talked about his robot mods.
Tom C. gave a talk about his compass experience.

Chris N
9:01 PM
Pat - This page from Pololu mentions the 10uF cap requirement: https://www.pololu.com/product/136
They don't mention that on the "newer" models of that sensor, e.g.: https://www.pololu.com/product/2474
Context: Sharp IR sensor readings "jumping" around

Chris N

9:03 PM
"Average current consumption: 30 mA (note: this sensor draws current in large, short bursts, and the manufacturer recommends putting a 10 µF capacitor or larger across power and ground close to the sensor to stabilize the power supply line)"
Pat Caron
9:04 PM
Thanks Chris
Mickey Dean
9:19 PM
Tom, I really enjoy your presentations. Thanks for doing them
Mickey Dean
9:43 PM
nice Chris
Doug P.
9:49 PM
David Anderson's outdoor robot link: http://www.geology.smu.edu/dpa-www/robo/jbot/index.html
https://www.youtube.com/@clausbrenner8146/playlists

Mickey Dean
9:53 PM
more layered
Chris N
9:59 PM
Tom, here is my repository. I will upload the PowerPoint file to it later.... https://github.com/nettercm/romi
Ponder SomeMore
10:00 PM
https://uni-tuebingen.de/en/fakultaeten/mathematisch-naturwissenschaftliche-fakultaet/fachbereiche/informatik/lehrstuehle/autonomous-vision/lectures/self-driving-cars/
Doug P.
10:01 PM
SLAM YouTube videos: https://www.youtube.com/@clausbrenner8146/playlists
Mickey Dean
10:02 PM
Karim, great link
Cyril Stachniss is another person if you are into Computer Vision at all.
Pat Caron
10:03 PM
Great talk guys. See you next week.