DPRG RBNV Chat Record – July 25, 2023

Carl Ott
7:41 PM
~7:39pm - Doug D - GOLD STAR for showing a live demo of his Steam Punk style RoboDog spinning on its p'wheels
Unknown
7:44 PM
I2C MicroPython Slave software
Carl Ott
7:44 PM
~7:43pm - found a full Windows 11 computer to run via VNC - ~ ~160 or $200 - could be a replacement to a Raspberry Pi for a robot...
Unknown
7:44 PM
https://python-academia.com/en/raspberry-pi-pico-slave/
https://github.com/adamgreen/i2cperipheral
I2C MicroPython Slave software
Pat Caron
7:45 PM
Raspberry Pi 4 - 4GB $55 USD https://www.pishop.us/product/raspberry-pi-4-model-b-4gb/
Doug Dodgen
7:46 PM
https://www.amazon.com/dp/B0BVR9KP9Y?ref=ppx_yo2ov_dt_b_product_details&th=1
Carl Ott
7:46 PM
Dave Ackley - thanks for sharing the link to the I2C Slave Software...
Pat Caron
8:05 PM
I have a question if you add me to the queue.
Carl Ott
8:08 PM
Pat - got you in queue:
Ed P Navin Kasa Pat
Carl Ott
8:11 PM
~8:08 - Ed P visited & shared various projects - a 3-d printed Pen Plotter. And a Stock Demo of an E-Ink display
Ed Paradis
8:11 PM
https://github.com/eparadis/qtpy_epaper_io_expander
Carl Ott
8:11 PM
Thanks Ed - sample code for driving an EInk display.
Ed Paradis
8:13 PM
https://github.com/eparadis/pen_plotter
Unknown
8:14 PM
PY32F00A
Unknown
8:17 PM
PY32F002A
Carl Ott
8:18 PM
Thanks David - PY32F00A as an ARM processor for $0.08.
in quantities...
Carl Ott
8:20 PM
More stuff on the Puya PY32 https://www.cnx-software.com/2023/02/09/8-cents-for-an-arm-cortex-m0-microcontroller-meet-puya-py32-series-mcus/

Pat Caron
8:20 PM
Cheap quadruped! https://arstechnica.com/gadgets/2023/07/this-lidar-equipped-30-pound-robot-dog-can-be-yours-for-1600/
Carl Ott
8:24 PM
Vorpal the Hexapod https://vorpal-robotics-store.myshopify.com/products/vorpal-the-hexapod-opts
~8:20pm - Navin asked for suggestions to get started building a robot.
Ed Paradis
8:25 PM
if you're looking for well thought out kits for small rolling robots, you can look through Pololu's kits https://www.pololu.com/category/2/robot-kits
Carl Ott
8:27 PM
This one is a very inexpensive starter robot - to get comfortable with the basics... https://www.amazon.com/perseids-Chassis-Encoder-Wheels-Battery/dp/B07DNYQ3PX/ref=sr_1_1?crid=21RHKR72A2RR0&keywords=2+wheel+robot&qid=1690334845&sprefix=2+wheel+robot%2Caps%2C142&sr=8-1
Carl Ott
8:30 PM
~8:30pm - Pat asked about PWM frequency for a DC brushed motor - what frequencies work best for a smaller DC brushed motor.
Dave A - gave rule of thumb that you want to go as high of a frequency as your H-Bridge can tolerate.
Carl Ott
8:32 PM
Scott G suggested getting above 10K Hz, so that you can get above annoying audio frequencies. Scott said he likes 19 KHz
Carl Ott
8:34 PM
Welcome Mickey! Feel free to jump in if you like - or put a comment here in the chat...
Mickey Dean
8:35 PM
Thanks, pat brought up a topic I'd like to ask something about.
You
8:38 PM
Pat, here is the article I was talking about: https://www.dprg.org/l298n-motor-driver-board-drive-modes/
You
8:45 PM
Excellent YouTube videos about HMC5883 or QMC5883 :
Basics:
https://www.youtube.com/watch?v=xh_KCkds038
Details (part 1):
https://www.youtube.com/watch?v=NTDS2Vmnr-4
Details (part 2):
https://www.youtube.com/watch?v=sFOK9C-F5XE
Details (part 3):
https://www.youtube.com/watch?v=O3ZtVkj6CvU
Carl Ott
8:45 PM
~8:44pm - John K shared info about various items - last weekend - a machinist club - meet 4th Saturday each month in Garland.
Carl Ott
8:46 PM
Doug - thanks for sharing that Video titled "QST QMC5883L 3-Axis Digital Compass and Arduino MCU – The Details (3)"
Pat Caron
8:48 PM
Thanks Doug P!
Carl Ott

8:48 PM
~8:48pm - Ray tried the SparkFun Micro Magnetometer MMC5983MA - but said it was very sensitive to metal in the environment anywhere within a few feet...
John K
8:50 PM
NTMAC North Texas Machinists Club Meet at 9:30 am - 4th Saturday of month, normally at Gilbreath-Reed Career and Technical Center, 4885 N President George Bush Hwy, Garland TX 75040 www.NTMAC.NET more info email Info@ntmac.net
Carl Ott
8:51 PM
~8:50pm - Michael I - gave an update on his Claw - knows that the little yellow motors don't have enough strength
STAR for Michael - claw machine working- swinging around !
Carl Ott
8:56 PM
Silvery BLACK STAR for Michal!
Carl Ott
8:59 PM
Somebody mentioned Race Cars - speak of the devil....
https://youtu.be/HT-K5n0gWaY
Mickey Dean
9:04 PM
Doug, consider mower wheels too
Mickey Dean
9:06 PM
nice Pat!
Carl Ott
9:08 PM
OK - on the topic of PRams - Jet Powered Pram https://www.youtube.com/watch?v=SgZCk7tMOYc
Carl Ott
9:10 PM
actually, that Pram wasn't jet powered. But this Go Kart is... https://youtu.be/zsXWspo5hrc
Ponder SomeMore
9:10 PM
https://www.shopjourney.com/products/cpo-so-lite-glide-backsaver-rollator-walker?variant=40535619534931&/?num=8884101298&gclid=Cj0KCQjw5f2lBhCkARIsAHeTvlhLGiWtNaovHaj-oPht6HTF9hRD67ZuG8rYV3OtPVTpK1hBeLykoNoaAqdAEALw_wcB
https://medmartonline.com/media/catalog/product/p/r/protekt-gazelle-knee-walker-kwadcs.jpg?quality=80&fit=bounds&height=676&width=676
Ed Paradis
9:11 PM
Looks like they're called "Knee carts."
Carl Ott
9:12 PM
Karim - thanks for great links on nice looking larger wheel sources... "UPWalker"s
Mickey Dean
9:13 PM
Karim, I have been meaning to ask you the weight of your Iron Reign robots.
Ponder SomeMore
9:13 PM
https://www.amazon.com/KneeRover-Economy-Scooter-Steerable-Alternative/dp/B01H0S9AXM?th=1
Mickey, the competition robots are mostly in the 25-40 lb range.
Ponder SomeMore
9:14 PM
but mechavator was 4 tons.
Mickey Dean
9:15 PM
What size motors?
Ponder SomeMore
9:16 PM

if that question was for me, we generally use:
https://www.revrobotics.com/rev-41-1600/
these have encoders pre-mounted.
Mickey Dean
9:22 PM
I suspect my mower is at least 70 pounds and though these 550's do the job I feel I need more power as I am about half throttle at my preferred pace (which is slow) and to turn I tend to nearly max throttle on one side. I will use these until they die, or I run out of grass this year.