DPRG RBNV Chat Record – July 18, 2023

Mickey Dean
7:38 PM
I could show my mower.

Carl Ott
7:43 PM
~7:40pm - Mike W - talked about I2C for a slave - via Python. Writing to a Pico from ESP32 was easy, but reading from the the Pi was very difficult. Finally got Python to read something from the slave - an RP2040 / Pico - but the code is so minimal is not very useful. So plan to try the Pico using C - hopefully fast enough to handle interrupts (less than 100 microseconds)...

Jim F - CalgaryAB
7:44 PM
Hello 👋 Everyone

Carl Ott
7:44 PM
As Dave Ackley pointed out - might be worth contacting Murry from New Zealand - who tackled a similar approach...
HI Jim

Carl Ott
7:50 PM
~7:48pm - Ray gave an update on his security system - trying to use an old 2G radio module - but T-Mobile doesn't have strong enough coverage in his area - so he'll upgrade to a much newer LTE module with plenty of additional horsepower and peripheral support. Amusingly enough -it still uses the (Hayes modems?) AT commands

Carl Ott
7:53 PM
Ray found this Adafruit module pretty handy looking...

Mike Williamson
7:54 PM
this is the pi pico tiny I am using.

Carl Ott
7:57 PM
~7:55pm - Mike W showed the barn alarm - which uses the same cellular module Ray is using...

Carl Ott
8:00 PM
https://www.amazon.com/LILYGO-ESP32-S3-T-SIM7080G-S3-Development-Supports/dp/B0BW3NN54L
LILYGO ESP32-S3 T-SIM7080G-S3 SIM7080 TTGO Development Board Supports Cat-M NB-Iot with GPS

Ray Casler
8:02 PM
https://www.amazon.com/dp/B0BW3NN54L sim7080g link

Carl Ott
8:03 PM
Ray found a data plan for $5 / month for about 300 MB.
on T-Mobile

Ponder SomeMore
8:09 PM
Mickey you are connected twice.

Carl Ott
8:14 PM
~8:10pm - Mickey D shared an update on his mower - showed mechanical updates - talked about problems & ways to adhere the rubber tread to the wheel...

ed mart
8:18 PM
Is that a canadian 2X4 ??

Carl Ott
8:19 PM
BLACK STAR for Mickey - first presentation!

Mike Williamson
8:19 PM
This is the pico https://www.waveshare.com/rp2040-zero.htm

Carl Ott
8:26 PM
~8:22pm - Michael I shared new toys - a benchtop lathe, and a benchtop drill press...
Carl Ott
8:30 PM
https://www.homedepot.com/p/WEN-4-5A-Variable-Speed-Single-Phase-Compact-Benchtop-Metal-Milling-Machine-with-R8-Taper-33013/306114404
Carl Ott
8:32 PM
lathe https://www.amazon.com/VEVOR-Precision-Variable-50-2500-Processing/dp/B088TJBCF6/ref=sr_1_8?crid=T439VCR91X98&keywords=vevor+variable+speed+mini+lathe&qid=1689730276&sprefix=vevor+variable+speed+mini%2Caps%2C143&sr=8-8
~8:31pm - Doug and Karim gave a positive referral to https://www.youtube.com/c/blondihacks - all sorts of training and techniques...
Carl Ott
8:34 PM
About Blondihacks : Description The Blondihacks Channel features projects and educational videos by Quinn Dunki, covering topics ranging from electronics, home-brew computing, machine shop work, welding/fabrication, 3D printing, and more. Many are companion videos to full project write-ups, which you can find at http://www.blondihacks.com Only some of my content is available to the public. Pledge over at https://www.patreon.com/QuinnDunki to access more videos, engineering drawings, 3-D models
Michael Ivison
8:35 PM
https://www.amazon.com/HHIP-3901-5032-ER-32-Collet-Diameter/dp/B01ADK2PM2/ref=sr_1_1?crid=3C53F16VYM81D&keywords=mini+lathe+collet+chuck&qid=1689730518&sprefix=mini+lathe+co%2Caps%2C155&sr=8-1
Carl Ott
8:36 PM
OK this is cool - Blondihacks is building a 1:16 scale 3.5" track size - live steam engine from scratch - capable of pulling and adult around... https://www.youtube.com/playlist?list=PLY67-4BrEae-xhrvZX33gPk4Q87S1ttae
Mickey Dean
8:49 PM
I'll set up a car phone holder to better show the mower moving next time, I wish I had thought of it this time.
Carl Ott
9:00 PM
~8:50pm - Harold showed a data sheet for a PIA5100JE optical flow sensor... Slight rant about how the data sheet lists registers and data but fails to show how to use it / what those do...
Carl Ott
9:02 PM
Here's a review that Murray did on that part in July 2021 https://robots.org.nz/2021/07/09/the-paa5100je-near-optical-flow-sensor/
ed mart
9:14 PM
12.9
Carl Ott
9:26 PM
~9:20pm - discussion around 3D printing - including using Food Dehydrators to pull moisture out of filament spools. Also described using larger airtight storage containers to store filament e.g. with silica desiccant at the bottom...
Ponder SomeMore
9:29 PM
https://www.amazon.com/gp/product/B0BDL6YGBJ/ref=ppx_yo_dt_b_search_asin_title?ie=UTF8&psc=1
that's the magnetic PEI sheet we use.
Mickey Dean
9:35 PM
Carl, you look like you might bail soon, so I wanted to be sure to say thank you for hosting these meetings and thanks to all of you guys for a
for the meetings going virtual
Ponder SomeMore
9:35 PM

for the tub we use a sterilite gasket box, 54 quarts.
Mike Williamson
9:35 PM
pat could have the extruder putting out too much plastic causing the feet to swell a tiny bit
Carl Ott
9:37 PM
~9:36pm - Pat raised a question about the DIYmalls B-880 GPS module with Flash and HMC5883 Compass - Has questions about how to get the compass to work reliably...
ed mart
9:38 PM
You are too close to the North Pole!
Mickey Dean
9:38 PM
too close to the north pole is my guess.
Carl Ott
9:45 PM
Pat is using one of these boards https://www.amazon.com/DIYmalls-Receiver-Raspberry-Aircraft-Betaflight/dp/B086ZKFFY4
Mickey Dean
9:50 PM
I'm telling you it is just too close to the North Pole :)
Mickey Dean
9:51 PM
lol
Mickey Dean
9:56 PM
GNSS
You
9:57 PM
GNSS w/ compass :
https://www.amazon.com/gp/product/B0CB5N8RQ8/ref=ppx_yo_dt_b_asin_title_o04_s00?ie=UTF8&psc=1
Mickey Dean
10:03 PM
uh oh, hopefully not Aussie GPS modules cuz I spent 75 bucks on an OzzMaker BerryGPS-IMU and it is a M*
https://ozzmaker.com/product/berrygps-imu/
I do not know enough yet to say if it is any good.
Mickey Dean
10:04 PM
I will be working with that in August.
Ponder SomeMore
10:05 PM
Congrats on the black star Mickey. Thanks for the discussion folks. I gotta go.
Mickey Dean
10:05 PM
take care Karim, thanks for the encouragement.
Mike Williamson
10:07 PM
yup got to go also.
ed mart
10:08 PM
Traveling to Montreal was easier than re-entering US 1980s 90s 2000 by auto.