

## DPRG RBNV Chat Record – July 12, 2022

Carl Ott

7:48 PM

16 July 2022- Workshop - Move from Arduino IDE to VS Code w/ Platform IO & Git <https://www.meetup.com/build-more-robots-with-dprg/events/287134558/> <https://www.dprg.org/category/news/> Hybrid: Online & Dallas Makerspace / Interactive Classroom

Carl Ott

7:50 PM

Note: it's now strongly recommended to bring an Arduino to the 12 July workshop

Carl Ott

7:52 PM

Here's the link to the Dallas Makerspace calendar event <https://calendar.dallasmakerspace.org/events/view/18369>

7 photons

7:52 PM

I should be able to come

Carl Ott

7:57 PM

~7:53pm - Doug D showed progress in his platform hardware - showed a wiring board with terminal blocks and power and ground distribution. Including discussion of power budget and regulator options...

You

8:00 PM

Hobbywing UBEC: [https://smile.amazon.com/Ship-Hobbywing-Switch-mode-UBEC-Lowest/dp/B008ZNWQYY/ref=sr\\_1\\_33?crid=9HGS7BXA05CT&keywords=hobbywing+ubec&qid=1657673955&sprefix=hobbywing+ubec%2Caps%2C141&sr=8-33](https://smile.amazon.com/Ship-Hobbywing-Switch-mode-UBEC-Lowest/dp/B008ZNWQYY/ref=sr_1_33?crid=9HGS7BXA05CT&keywords=hobbywing+ubec&qid=1657673955&sprefix=hobbywing+ubec%2Caps%2C141&sr=8-33)

Carl Ott

8:07 PM

~8:01pm - Harold - balance bot - now named 'BB-03.14159...' / or 'BB-Pi' for short. Nice progress printing parts, component layout & fit check. Asked about servo mounts - are grommets still a thing? (the guy at Hobby Lobby had never heard of grommet mounts before)

note - quick search on Amazon shows lots of options - servo grommets <https://www.amazon.com/servo-grommets/s?k=servo+grommets>

Carl Ott

8:11 PM

Or - could look at 'servo vibration damper'. At a glance - it's easy to imagine that these dampers could make a difference when you have e.g., a sensitive camera on a vibration heavy quadcopter. For a wheeled robot - not sure how much difference dampers would make.

[https://www.amazon.com/s?k=servo+vibration+damper&crid=3F378JPYIUQZV&sprefix=servo+vibration+dampe%2Caps%2C98&ref=nb\\_sb\\_noss](https://www.amazon.com/s?k=servo+vibration+damper&crid=3F378JPYIUQZV&sprefix=servo+vibration+dampe%2Caps%2C98&ref=nb_sb_noss)

Carl Ott

8:13 PM

From my view though - as somebody with vibration generating mecanum wheels- I've been thinking of mounting the IMU on a heavier mass, then mounting the mass to the robot chassis via 20 Hz low pass shock isolation mounts (or some kind of damper even if not ones with a 20 Hz roll off)

Carl Ott

8:15 PM

~ 8:12..8:14pm - discussion on printing wheels, perhaps with dual extruder heads and TPU...

Carl Ott

8:18 PM

~8:17pm - Harold shared his 4 rules of thumb for printing TPU...

Carl Ott

8:21 PM

~8:19pm - showed a little dual channel \$130 oscilloscope from Sainsmart - about the size of a credit card...

[https://www.sainsmart.com/products/dso212-2-ch-handheld-mini-digital-oscilloscope?variant=32698138689615&msclkid=3e1a8a093e1c168ab0e9e8c723d3554f&utm\\_source=bing&utm\\_medium=cpc&utm\\_campaign=Shopping&utm\\_term=4575617643108710&utm\\_content=SainSmart%20Catalog](https://www.sainsmart.com/products/dso212-2-ch-handheld-mini-digital-oscilloscope?variant=32698138689615&msclkid=3e1a8a093e1c168ab0e9e8c723d3554f&utm_source=bing&utm_medium=cpc&utm_campaign=Shopping&utm_term=4575617643108710&utm_content=SainSmart%20Catalog)

Carl Ott

8:23 PM

~8:22pm- John K showed his latest find - this Instructible for an inexpensive starter robot, and also nice options to use TinkerCad also for schematics... <https://www.instructables.com/Foam-Robot/>

Ponder SomeMore

8:25 PM

carbon fiber tastes better

Carl Ott

8:25 PM

and helps digestion!

Ponder SomeMore

8:25 PM

r-r-r-roughage!!!

Carl Ott

8:28 PM

If you joined a little later - we're talking about this Saturday's workshop -

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Classroom

Carl Ott

8:30 PM

~8:29pm - Karim - ad-hoc update on the "Mechavator" project - no formal details yet - but - making progress... No film yet. And only have one more weekend to use it...

Carl Ott

8:37 PM

~8:34pm - Chris N - asked if anybody has tried the Cloud version of VS Code - or the AI Code assistants (e.g. GitHub has one)- code completion on steroids... What a great opening to get Harold fired up to use his Microsoft MVP Pro access to GitHub - with GitHub spaces, and GitHub CoPilot - where they've put every public repo through the CoPilot AI - and found that it can handle things like "I want to be able to play MP3 audio" and the CoPilot pulls out enough code to get you started...

Carl Ott

8:38 PM

Looks like you can even get a free trial: <https://github.com/features/copilot/>

Carl Ott

8:43 PM

~8:41pm - John K showed another Instructible "How to Make a Robot Car Drive Straight and Turn Exact Right Angles With MPU6050 Gyroscope Sensor" <https://www.instructables.com/How-to-Make-a-Robot-Car-Drive-Straight-and-Turn-Ex/>

Carl Ott

8:54 PM

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