

DPRG RBNV_Chat Record – December 3, 2024

00:01:39.189,00:01:42.189

Carl Ott: Paul gave an update on RoboRemo - a cool platform for custom cell-phone based robot GUI

00:02:14.469,00:02:17.469

Paul Bouchier: <https://roboremo.app/>

00:02:15.420,00:02:18.420

Carl Ott: <https://roboremo.app/>

00:04:02.978,00:04:05.978

Carl Ott: Note - for anybody that missed it last week - we had quite a healthy discussion about RoboRemo as well as some similar alternatives

00:04:08.554,00:04:11.554

Carl Ott: check the video & notes

00:23:21.841,00:23:24.841

Z223I: MoBot?

00:23:28.076,00:23:31.076

Z223I: MowBot?

00:23:48.123,00:23:51.123

Z223I: Bruce

00:24:01.593,00:24:04.593

Z223I: That is what I am working on.

00:24:47.787,00:24:50.787

Mickey Dean: Bruce, so am I, but Paul is much further along than I am, and his is not as redneck as mine

00:24:55.252,00:24:58.252

Mickey Dean: Bruce*

00:25:10.693,00:25:13.693

ed mart: <https://www.dprg.org/category/news/>

00:26:16.468,00:26:19.468

Carl Ott: Z223I - feel free to speak up if you have a mic or plop a question / comment in chat

00:26:55.644,00:26:58.644

Z223I: Mic is broke. I chat here. ty

00:28:06.581,00:28:09.581

Mickey Dean: Bruce, the group has a Discord Server too where you can ask questions during the rest of the week

00:28:18.193,00:28:21.193

Z223I: Got it.

00:28:35.900,00:28:38.900

Z223I: Is there a way to change my display name while in the meeting?

00:29:59.293,00:30:02.293

Z223I: ok

00:30:29.270,00:30:32.270

Z223I: Paul, Do you have a repo for MowBot?

00:30:56.210,00:30:59.210

Paul Bouchier: @bruce, yes, several.

00:31:56.275,00:31:59.275

Paul Bouchier: Mowbot described here:

<https://sites.google.com/site/paulbouchier/home/mowbot>

00:37:12.831,00:37:15.831

Paul Bouchier: Pat showed a GPS X-Y scatter plot collected from a stationary receiver, showing the motion of a fix over 2.5 minutes (119 samples)

00:37:42.705,00:37:45.705

Paul Bouchier: Sorry - Tom C showed a GPS X-Y scatter plot collected from a stationary receiver, showing the motion of a fix over 2.5 minutes (119 samples)

00:38:12.490,00:38:15.490

Z223I: @Paul, Thanks.

00:39:37.570,00:39:40.570

Mickey Dean: Karim, is the drift less with rtk?

00:40:00.391,00:40:03.391

Ponder SomeMore: way less - if you get a RTK fix

00:40:21.093,00:40:24.093

Ponder SomeMore: kind of like zero, or extremely hard to measure

00:41:23.166,00:41:26.166

Z223I: What about rtk2go with base station locally. They claim 1/4" accuracy. Does that drift?

00:42:06.134,00:42:09.134

Paul Bouchier: rtk2go replaces a local base station

00:42:34.090,00:42:37.090

Z223I: Does it drift? That is where I am headed.

00:43:01.360,00:43:04.360

Paul Bouchier: within 2cm, or whatever units fix accuracy is

00:43:09.650,00:43:12.650

Z223I: ok

00:49:00.165,00:49:03.165

Tom C - Hamilton, ON:

https://cdn.sparkfun.com/assets/learn_tutorials/8/1/4/AntennasForRTK_WhitePaper__UBX-16010559_.pdf

01:06:47.876,01:06:50.876

ed mart: Thank you great info

01:08:47.174,01:08:50.174

Mickey Dean: Karim, i am thinking of mounting a base station on the top of a truck (if I can figure out a way to secure it so no one steals it while I am mowing), in theory this should allow me to work in different locations using my same base station, right? How long would satellite calibration take?

01:10:23.952,01:10:26.952

Mickey Dean: Virginia doesn't have any RTK2Go in my area

01:11:11.794,01:11:14.794

Jim F - CalgaryAB: Mickey, do you have a Fleet of mowbots and you sip ice tea while they mow?

01:11:50.779,01:11:53.779

Mickey Dean: Jim, that is the plan, but sadly my mowbot is an only child right now

01:17:58.486,01:18:01.486

Mickey Dean: ty Paul

01:18:15.911,01:18:18.911

Ponder SomeMore: Mickey, how safe do the flower beds need to be?

01:18:24.924,01:18:27.924

Mickey Dean: Imbo Karim

01:19:22.494,01:19:25.494

Mickey Dean: Paul, good info Paul, worth looking into

01:20:06.063,01:20:09.063

Mickey Dean: Paul, interesting idea, worth looking into

01:21:02.722,01:21:05.722

Mickey Dean: Virginia is an RTK2Go dead zone it seems

01:21:08.756,01:21:11.756

Mickey Dean: only paid services near me

01:21:33.760,01:21:36.760

Paul Bouchier: National Geodetic Survey data points:

<https://noaa.maps.arcgis.com/apps/webappviewer/index.html?id=190385f9aadb4cf1b0dd8759893032db>

01:27:29.801,01:27:32.801

Mickey Dean: you must click the right arrow on one of the triangles to see the datasheet, then look for Last Condition

01:27:51.415,01:27:54.415

Mickey Dean: most of mine sadly say Mark not found, but one says last condition is good

01:28:27.396,01:28:30.396

Mickey Dean: click the right arrow to see the datasheet on the site

01:28:40.089,01:28:43.089

Mickey Dean: i think it is only the triangles

01:29:13.136,01:29:16.136

Mickey Dean: zoom in a little maybe?

01:30:26.699,01:30:29.699

Mickey Dean: last condition

01:32:33.865,01:32:36.865

Pat Caron: Good discussion tonight guys. See you next week

01:32:48.384,01:32:51.384

Mickey Dean: are you using a Pi4 or Pi5? just curious

01:33:09.427,01:33:12.427

Mickey Dean: yeah, I am sold on ROS myself

01:33:24.525,01:33:27.525

Mickey Dean: not yet READY for ROS yet

01:34:10.943,01:34:13.943

Mickey Dean: wow, Scott does those runs without GPS!

01:34:23.470,01:34:26.470

Paul Bouchier: Yes!

01:34:27.755,01:34:30.755

Mickey Dean: I get he did not win THIS year, but still i assumed he used GPS too

01:34:38.145,01:34:41.145

Paul Bouchier: No - he has GPS but not RTK-GPS

01:34:44.981,01:34:47.981

Mickey Dean: ahhh

01:42:21.185,01:42:24.185

Mickey Dean: Paul, try RC parts

01:42:47.402,01:42:50.402

Ponder SomeMore: <https://www.revrobotics.com/rev-21-1651/>

01:43:00.536,01:43:03.536

Mickey Dean: cheaper is the main reason here

01:43:14.356,01:43:17.356

Mickey Dean: i can get my 550's for 10 bucks

01:43:20.334,01:43:23.334

Ponder SomeMore: <https://www.revrobotics.com/rev-21-1650/>

01:43:25.496,01:43:28.496

Mickey Dean: but they are brushed

01:44:03.173,01:44:06.173

Mickey Dean: it is more a can size

01:45:20.902,01:45:23.902

Mickey Dean: 540 is close enough

01:45:31.278,01:45:34.278

Mickey Dean: you see 540 or 550 I noticed

01:46:06.625,01:46:09.625

Mickey Dean: then you step up to 775's or 800's

01:46:24.861,01:46:27.861

Mickey Dean: FOC

01:46:57.194,01:47:00.194

Mickey Dean: brushless is definitely better

01:47:06.649,01:47:09.649

Mickey Dean: just so dang expensive

01:53:07.247,01:53:10.247

Mickey Dean: don't encoders help keep your motors going at similar speeds for the straight line running

01:53:23.999,01:53:26.999

Mickey Dean: with the PID control

01:56:01.062,01:56:04.062

Paul Bouchier: Don't confuse wheel speed with wheel position. Position relates to heading and position. Speed, just tells you how fast each wheel is going and lets you control speed

01:57:21.888,01:57:24.888

Mickey Dean: right, but can you control the case of one motor that is stronger than the other and keeping a straight line without encoders?

01:58:32.491,01:58:35.491

Ponder SomeMore: you can profile your motors, but they can vary depending on load changes. encoders are always worth the investment in my book.

01:58:51.520,01:58:54.520

Mickey Dean: appreciate the thoughts, thanks

02:00:00.970,02:00:03.970

Mickey Dean: I do plan on getting encoders this fall/winter on my bot my caretaking duties ended abruptly this thanksgiving, so in a few months I will feel up to getting back to the robot

02:01:01.672,02:01:04.672

ed mart: I have an irobot dirt dog

02:02:05.488,02:02:08.488

ed mart: It yellow and comes from the Boston area

02:04:16.788,02:04:19.788

Mickey Dean: more turns mean higher top speed

02:04:18.458,02:04:21.458

Carl Ott: ChatGPT discussion on sensored Brushless motors

<https://chatgpt.com/share/67467890-ca3c-800e-b539-206222a79115>