DPRG RBNV Chat Record - April 22, 2025

00:01:13.077,00:01:16.077
Jim F - CalgaryAB: Hello from YYC

00:02:30.023,00:02:33.023
Jim F - CalgaryAB: YYC = Calgary Alberta Canada Airport Code. 🇨🇦

00:05:52.851,00:05:55.851
Paul Bouchier: Ted updated on how to shorten GPS antenna cables.

00:07:05.929,00:07:08.929
Ponder SomeMore: So Ted, how about opening up a cable right sizing service to the club?

00:09:33.830,00:09:36.830
Paul Bouchier: He compared a cable shortened at the antenna end, and one crimped to be the right length, and the original. All performed comparably. Scott G: Experimental results showed that using the correct torque spec helped improve signals by a couple of dB

00:13:57.186,00:14:00.186
Paul Bouchier: Scott introduced his new robot, Number Nine, that he's tweaking for competition

00:25:56.648,00:25:59.648
Paul Bouchier: Global localization: Lidar augments odometry by recognizing certain key things like distance in X direction based on measurement to side-walls. He updates Y when he goes through a goal. Lidar updates odometry maybe every few seconds.

00:26:51.033,00:26:54.033
Andre Childs: Thank you guys I have to head out. Nice to meet you all.

00:27:42.720,00:27:45.720
Paul Bouchier: Mike updated on his ROS robot. Has found a way to turn on & off ROS Lidar localization map from map to odom

00:33:59.879,00:34:02.879
Paul Bouchier: Mark wanted to try & break aider!

00:35:11.231,00:35:14.231
Paul Bouchier: Mark built a set of eyeballs that are servo driven, based off a design from someone in the UK

00:39:16.724,00:39:19.724
Paul Bouchier: Mark got aider to make some changes to the arduino sketch to change from one ESP32 board to another. Then he explained to it that it's eyes, and which servos control which

parts of the eyes. He hasn't touched a line of code so far.

00:40:25.079,00:40:28.079
Paul Bouchier: Mark demo'd the eyeballs moving, blinking.

00:41:21.321,00:41:24.321
Paul Bouchier: Gold Star for Mark, for showing the robot eyes moving

00:42:58.096,00:43:01.096
Mark R: Thanks for that comment Karim, its really easy to compliment the UI but yes Gemini absolutely did all the work

00:46:01.162,00:46:04.162
Paul Bouchier: Back to Mike who demo'd robot running a Z pattern, then he turns localization off & map & odom align in rviz, and how they change during a run

00:48:29.838,00:48:32.838
Paul Bouchier: Mike would keep localization on during six-can but would turn it off for quick-trip & 4-square.

00:51:22.066,00:51:25.066
Paul Bouchier: Mike has found the recipe for turning ROS Lidar localization to a map on & off

00:54:00.919,00:54:03.919
Paul Bouchier: He sets the tf_broadcast param in amcl to true or false, to turn broadcast on or off

00:54:51.863,00:54:54.863
Paul Bouchier: When he turns it off, he sets a static transform of 0, 0 from /map to /odom

00:56:36.126,00:56:39.126
Paul Bouchier: Mike has his game controller set up to change games.

00:57:44.279,00:57:47.279
Paul Bouchier: Gold Star for Mike for showing robot running

00:58:34.605,00:58:37.605
Paul Bouchier: Tom showed a picture of his line-following robot

01:00:45.649,01:00:48.649
Paul Bouchier: Tom reviewed his last year's robot that he used stepper motors with a stepper motor controller doing open loop control

01:02:12.107,01:02:15.107

Pat Caron: Nice use of plywood!

01:02:58.240,01:03:01.240
Paul Bouchier: Hom showed a coupler from the motor to the wheel, - 3D printed with a hex post to fit into the wheel, and a compression grip for the motor shaft

01:04:39.890,01:04:42.890
Paul Bouchier: Tom showed a second robot with Roomba motors. He's using velcro fasteners screwed to plywood to secure batteries etc.

01:07:17.815,01:07:20.815
Paul Bouchier: Open Mic

01:08:45.839,01:08:48.839
Paul Bouchier: Harold showed Mobile Mr Big-head

01:13:36.416,01:13:39.416
Paul Bouchier: He showed Colossus - an RPi computer chassis with SSD & boards for USB, etc,.

01:15:25.760,01:15:28.760
Paul Bouchier: There's an LCD display above the computer chassis, which will display the graphics.

01:16:51.098,01:16:54.098
Paul Bouchier: Harold has Gemma running on one of the RPi chassis.Has Ollama running on the other.

01:19:39.524,01:19:42.524
Mark R: https://ollama.com/

01:20:33.626,01:20:36.626
Paul Bouchier: Ollama is a LLM runner - it's not the LLM itself.

01:20:48.639,01:20:51.639
Carl Ott: Github for Ollama https://github.com/ollama/ollama

01:23:04.585,01:23:07.585
Paul Bouchier: Gemma is a small model that runs locally, so Ollama launches & talks to Gemma. You ask questions of Ollama & it passes the question on to Gemma, & returns the response.

01:24:30.795,01:24:33.795
Paul Bouchier: Ollama can also run Deep Seek R1, which can run on an RPi.

01:27:00.526,01:27:03.526
Mark R: Forgot to share the website for Will Cogley who designed the eyeballs, and other animatronics

https://willcogley.notion.site/

01:31:44.342,01:31:47.342
Paul Bouchier: Mike discussed Paul & Mark's work on Robie Arduino & Opencv code getting aider to enhance the functionality.

01:34:20.350,01:34:23.350
Paul Bouchier:
https://www.vincentschmalbach.com/copilot-vs-cursor-vs-cody-vs-supermaven-vs-aider/

01:40:28.574,01:40:31.574
Paul Bouchier: Paul talked about an article he found that compares aider to cursor to copilot for coding assistance