

## DPRG RBNV Chat Record – 8/22/2023

Mickey Dean

7:33 PM

no sir

ed mart

8:02 PM

Sun gear and planetary gear

ed mart

8:12 PM

Gold star !!!!!

ed mart

8:14 PM

Thank you

You

8:15 PM

Anuhy Das of Iron Reign updated their project of autonomously driving their 13 ton RV.

From 8:00 to 8:15

Ted Meyers

8:16 PM

<https://www.youtube.com/watch?v=etbQ6z2Gxm8>

You

8:17 PM

Link above is to autonomous Jeep at Spark Fun AVC

You

8:24 PM

Paul discussed the new LiDAR technology he had posted on the DPRG Mail List.

Mickey Dean

8:35 PM

that really is like a FMCW radar on steroids for sure

Mickey Dean

8:40 PM

Does it mention the FOV?

Mickey Dean

8:42 PM

are they calling it FMCW lidar?

Iron Reign

8:43 PM

yes

<https://spectrum.ieee.org/lidar-on-a-chip>

Mickey Dean

8:43 PM

ty karim

Iron Reign

8:45 PM

this is the part that sounded related to DLP to me: "One CMOS chip has thousands of solder-coated copper bumps placed about 75 micrometers apart, or about half the width of a human hair. This scheme allows our silicon photonics chip to be permanently mated with a semiconductor electronic chip containing the needed digital logic and a matching set of copper bumps. Simple commands to the electronic chip then drive thousands of photonic components in the appropriate fashion to sweep the beam."

though I don't really know DLP details

Iron Reign

8:49 PM

this guy did a very nice video on ultrasonic phased arrays:

<https://www.youtube.com/watch?v=z4uxC7ISd-c>

You

9:02 PM

Here is a article by DFRobot "Types of LiDAR and how they work". It mentions the type Paul is discussing. :  
<https://www.dfrobot.com/blog-1643.html>

Mickey Dean

9:07 PM

Paul, that was an excellent and fascinating presentation. Thank you for sharing.

Paul Bouchier

9:10 PM

Thanks Micky!

Iron Reign

9:23 PM

Adafruit active i2c extender/terminator

<https://www.adafruit.com/product/4756>

You

9:37 PM

Ray discussed I2C issues he is having on his alarm system using ESP32 and a OLED display. (~9:00)

You

9:42 PM

<https://www.bbc.com/future/article/20230815-the-ancient-tech-keeping-space-missions-alive>

Iron Reign

9:52 PM

Hey Paul, is there an article or project name you can share about the automated convoys you were working on?

Iron Reign

10:12 PM

<https://www.xtool.com/products/20w-diode-laser-module-for-xtool-d1-pro>

Iron Reign

10:25 PM

<https://www.plywoodcompany.com/pd/tempered-2s-hardboard-1-4/298>

Harold Pulcher

10:26 PM

<https://www.longer3d.com/collections/laser-engraver/products/longer-ray5-10w-laser-engraver>

Paul Bouchier

10:29 PM

Hey Karim - it was called AMAS (Autonomous Mobility Applique System). I've got some videos of it on my personal page: <https://sites.google.com/site/paulbouchier/home/professional-robotics-work>

Paul Bouchier

Iron Reign

10:30 PM

Thanks Paul! Super helpful

Iron Reign

10:31 PM

Thanks guys - I got to go.