DPRG RBNV Chat Record – May 31, 2022

Carl Ott 8:08 PM

 \sim 8:03pm - David Anderson gave an update - showing a video of his robot - running some test patterns - driving a triangle - once where hits a waypoint and spins in place, and again when it drives through the waypoints without stopping - even if obstacles show up in the way.....

Carl Ott

8:10 PM

all using wheel odometry and a z-axis rate gyro

Gold Star for David ...

Carl Ott 8:14 PM

~8:13pm - Doug P - something for folk looking at RoboColumbus components. In this case - an open

source Cone Detection system - reference <u>https://github.com/MarkDana/RealtimeConeDetection</u> Doug Paradis

8:18 PM

Traffic Cone dataset: https://github.com/MarkDana/RealtimeConeDetection

Carl Ott 8:19 PM

Overview of the YOLO Object Detection Algorithm <u>https://odsc.medium.com/overview-of-the-yolo-object-detection-algorithm-7b52a745d3e0</u>

YOLO – You only look once, real time object detection explained <u>https://towardsdatascience.com/yolo-you-only-look-once-real-time-object-detection-explained-492dc9230006</u>

Carl Ott 8:20 PM

YOLO: Real-Time Object Detection Explained Learn all about the YOLO algorithm for object detection and start training your own models using personalized datasets. Read time 9 min read · May 26,

2022 <u>https://www.v7labs.com/blog/yolo-object-detection</u>

Carl Ott 8:24 PM

some articles on YOLO implementations: YOLO Object Detection with OpenCV and

Python https://towardsdatascience.com/yolo-object-detection-with-opency-and-python-

<u>21e50ac599e9</u> YOLO object detection with OpenCV <u>https://pyimagesearch.com/2018/11/12/yolo-object-detection-with-opencv/</u>

Carl Ott

8:30 PM

John G discussed using Tesseract for Optical Character Recognition - doing better than the open ALPR system. ref <u>https://github.com/tesseract-ocr/tesseract</u>

Carl Ott 8:35 PM

~8:34pm- John G showed Carl Ott 8:37 PM showed a contour of license plate - and how the contour is slightly rotated with respect to the plate, which then throws off the de-warping and eventually adversely impact license plate OCR see ~ 8:36 Carl Ott 8:45 PM Here's an article on building your own OCR models / using license plates as an example. Building Custom Deep Learning Based OCR models by Anuj Sable 16 days ago 13 MIN READ https://nanonets.com/blog/attention-ocr-for-text-recogntion/ Carl Ott 8:52 PM ~8:51pm - Michael - questions about Roborama... how to get started... Carl Ott 9:02 PM ~9:00pm - David A showed an approach from long ago to collect cans - with a wide arm and sticky tape Carl Ott 9:05 PM ~9:05pm - Showed progress with his Coffee Bot Carl Ott 9:07 PM improvements to the cup grabbing mechanism... Carl Ott 9:08 PM Gold Star for Jack- working robot to grab a cup Carl Ott 9:19 PM ~8:14pm - David A- showed tennis players catching balls with a racket. which prompted looking for ball juggling robots like this https://www.youtube.com/watch?v=9asDO_1A27U David Anderson 9:20 PM Carlos Alcaraz catches ball with racket: https://www.youtube.com/watch?v=SpPONWbuOAA Roger Federer catch: Carl Ott 9:21 PM ~9:20pm - Michael showed improvements in queue for his Space Station look-a-like man-cave David Anderson 9:21 PM Federer: https://www.youtube.com/watch?v=6_dVMG1Ksck Carl Ott 9:22 PM Human robot catching & throwing balls... https://www.youtube.com/watch?v=83eGcht7lil Carl Ott 9:31 PM ~9:24pm - John G showed a robot playing darts - automatic bullseye, moving dartboard -John Gauthier 9:31 PM

https://www.alphavoice.io/video/mark-rober/automatic-bullseye-moving-dartboard

7 photons 9:44 PM I've got to go. See you all next week.

John Gauthier 9:56 PM here's the link to my automated LPR Camera https://github.com/zizumara/LPRCam