Computer Vision Aided Vehicle Movement

ELEC50015 Electronics Design Project

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What library

OpenCV

Open source cross platform image processing library, implemented in c. Converts raw image data into an n dimensional dense matrix.

What Does OpenCV Do
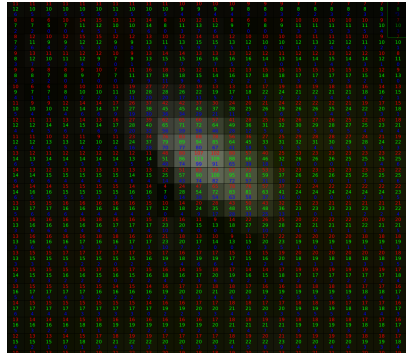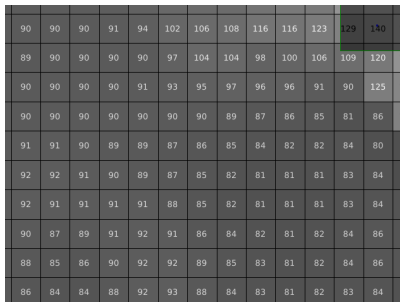

Figure 1: Screenshot of Opencv image frame

Figure 2: The underlying dense matrix containing RGB Values

Possible Implementations on the Robot

Figure 3: Grey Scale OpenCv image frame zoomed in

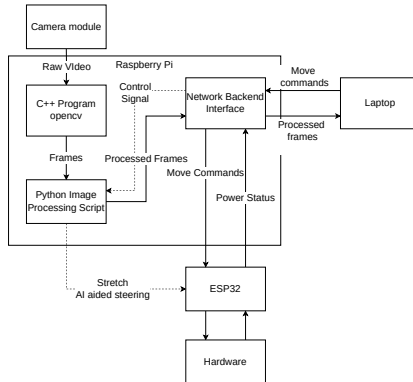- Identifying markers
- identifying people
- Navigating towards points

Diagram

Figure 4: Possible software implementation