# Computer Vision Aided Vehicle Movement

ELEC50015 Electronics Design Project

Corey Maxwell

Imperial College London What library

### OpenCV

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

#### Imperial College London

## What Does OpenCV Do



Figure 1: Screenshot of Opencv image frame

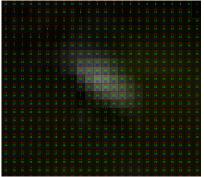
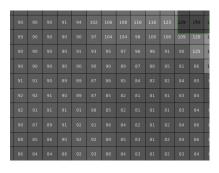


Figure 2: The underlying dense matrix containing RGB Values

#### Imperial College London

## Possible Implementations on the Robot



- Identifying markers
- identifying people
- Navigating towards points

Figure 3: Grey Scale OpenCv image frame zoomed in

## Imperial College London Diagram

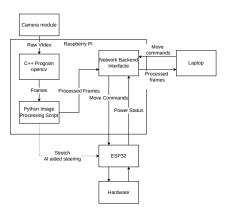


Figure 4: Possible software implementation