

# Current Research



- **Advanced Driving Assistance Systems:**
  - Can Driver Maneuvers be Predicted?
  - Ocular Behavior and Current Maneuvers
  - Driver Intent (Most Probable Next Maneuver)
  - V2I and V2V Communications

# Research Vehicle



# On-Board Systems



**Stereo 1:** Raw

Mirror  RAW

0.0

115.0 45.0

1 Camera 0 - S/N: 8170408

2 Camera 1 - S/N: 8080471

**Stereo 2:** Stereo Depth Map

Mirror  RAW

0.0

115.0 45.0

1 Camera 0 - S/N: 8170408

2 Camera 1 - S/N: 8080471

Record Stereo Configuration Camera Configuration

**Stereo1**

Unique	12	+	Window Size	7	+
Threshold	12	+	Speckle	100	+
X offset	0	+	Y offset	0	+

Disparity 128

**Stereo2**

Unique	7	+	Window Size	17	+
Threshold	3	+	Speckle	100	+
X offset	0	+	Y offset	0	+

Disparity 32

FaceLAB Can Active

Head Quality 0.59

Gaze Quality 3.00

Saccade

Pupil Diameter (mm)

Speed (Km/h)

Accelerator: 42.00

Brake: 1.00

Left Signal Right Signal

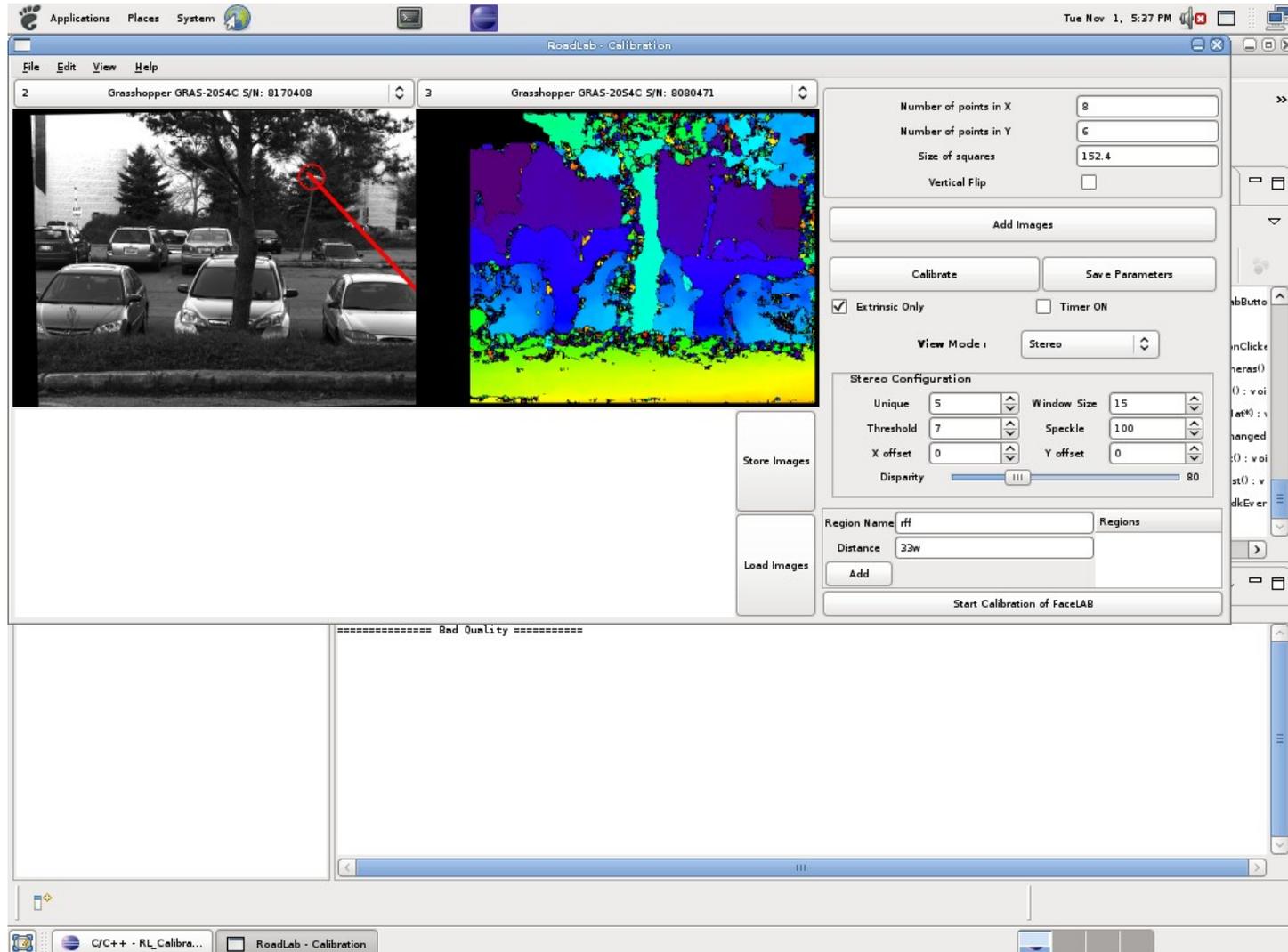
Queue size: 0.00

Quit

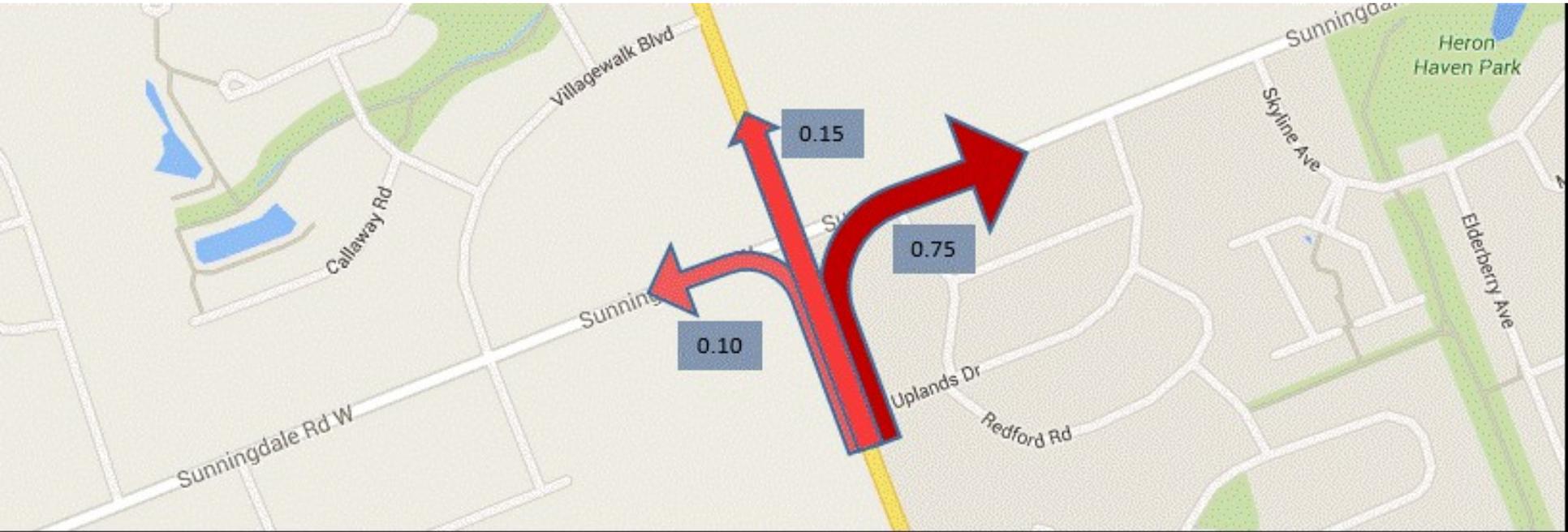
# On-Board Hardware



# 3D Point-of-Gaze



# Maneuver Prediction





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