

# Group 1

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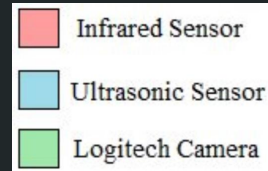
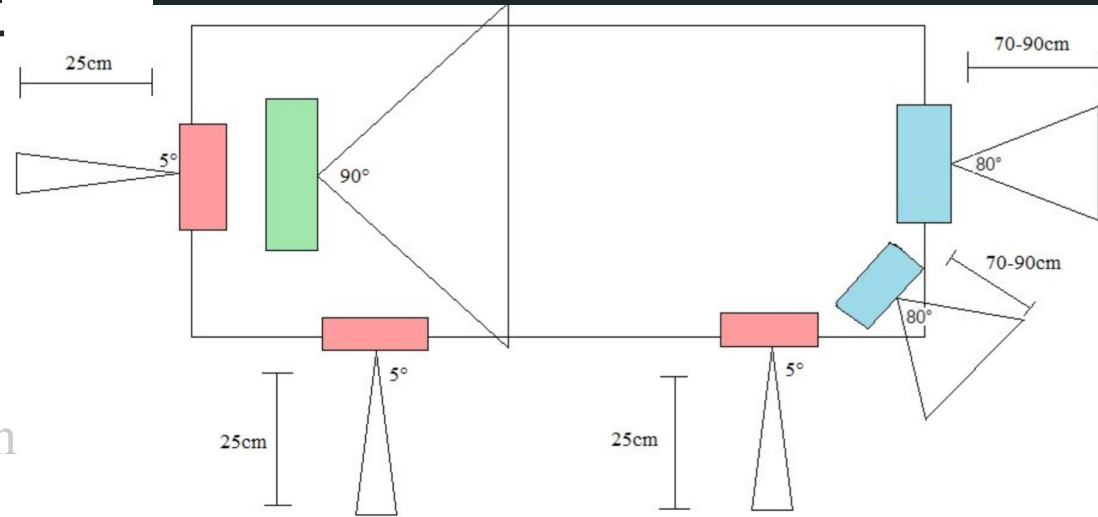
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Johannes Flood  
Nicholas Oloo  
Danielle Serafim  
Junjie Cheng

# System Architecture

## Bird's eye view sensor layout

Connection as block diagram

Sensors and actors as UML



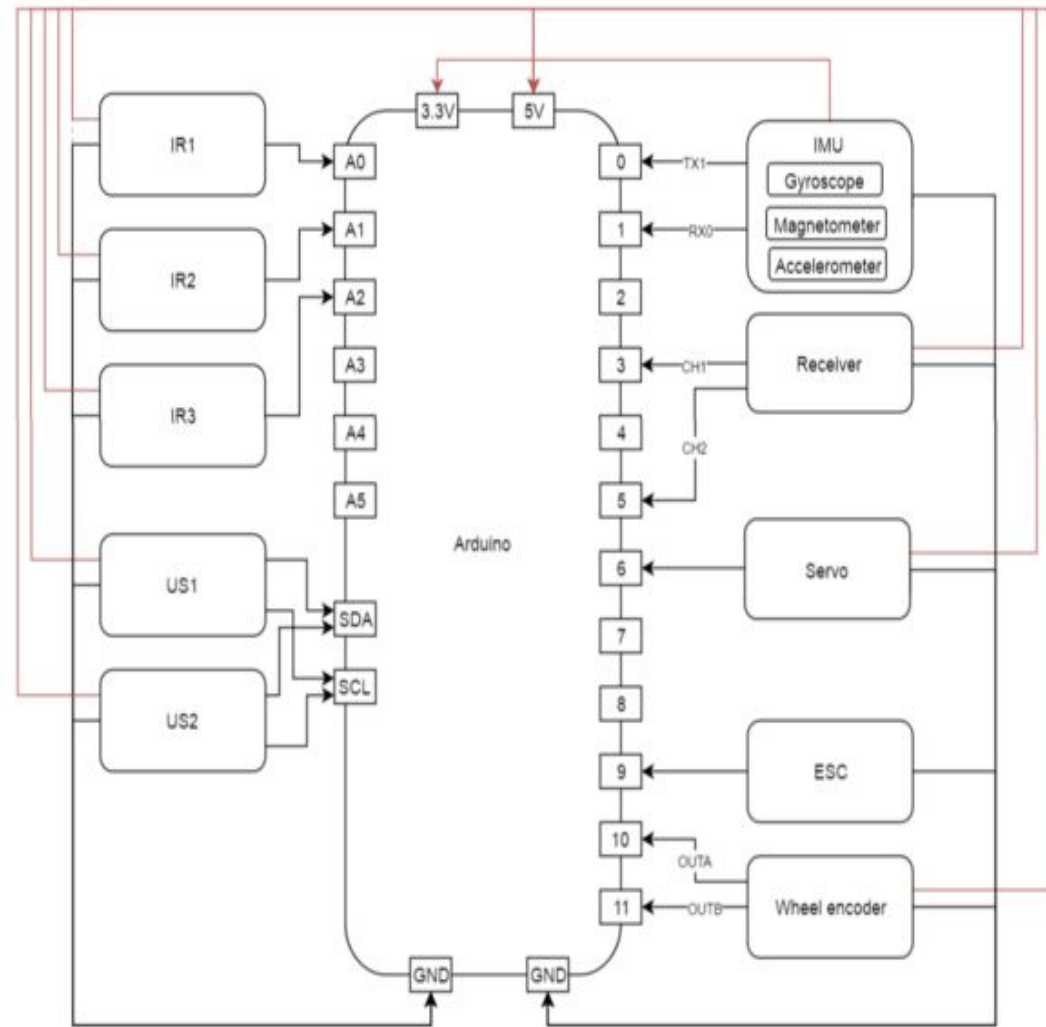
# System Architecture

Bird's eye view sensor layout

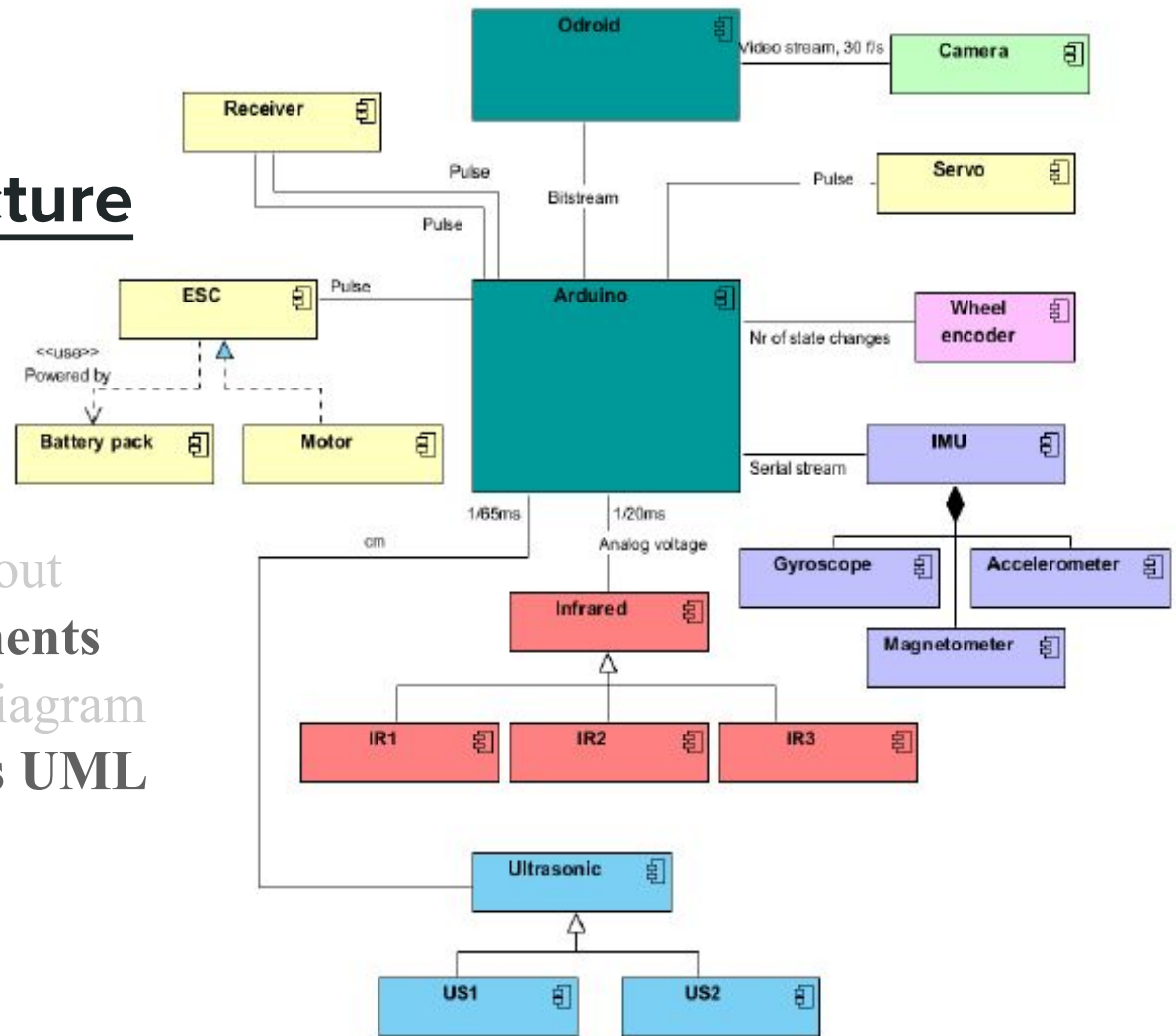
**Sensor and actor components**

**Connection as block diagram**

Sensors and actors as UML



# System Architecture



Bird's eye view sensor layout

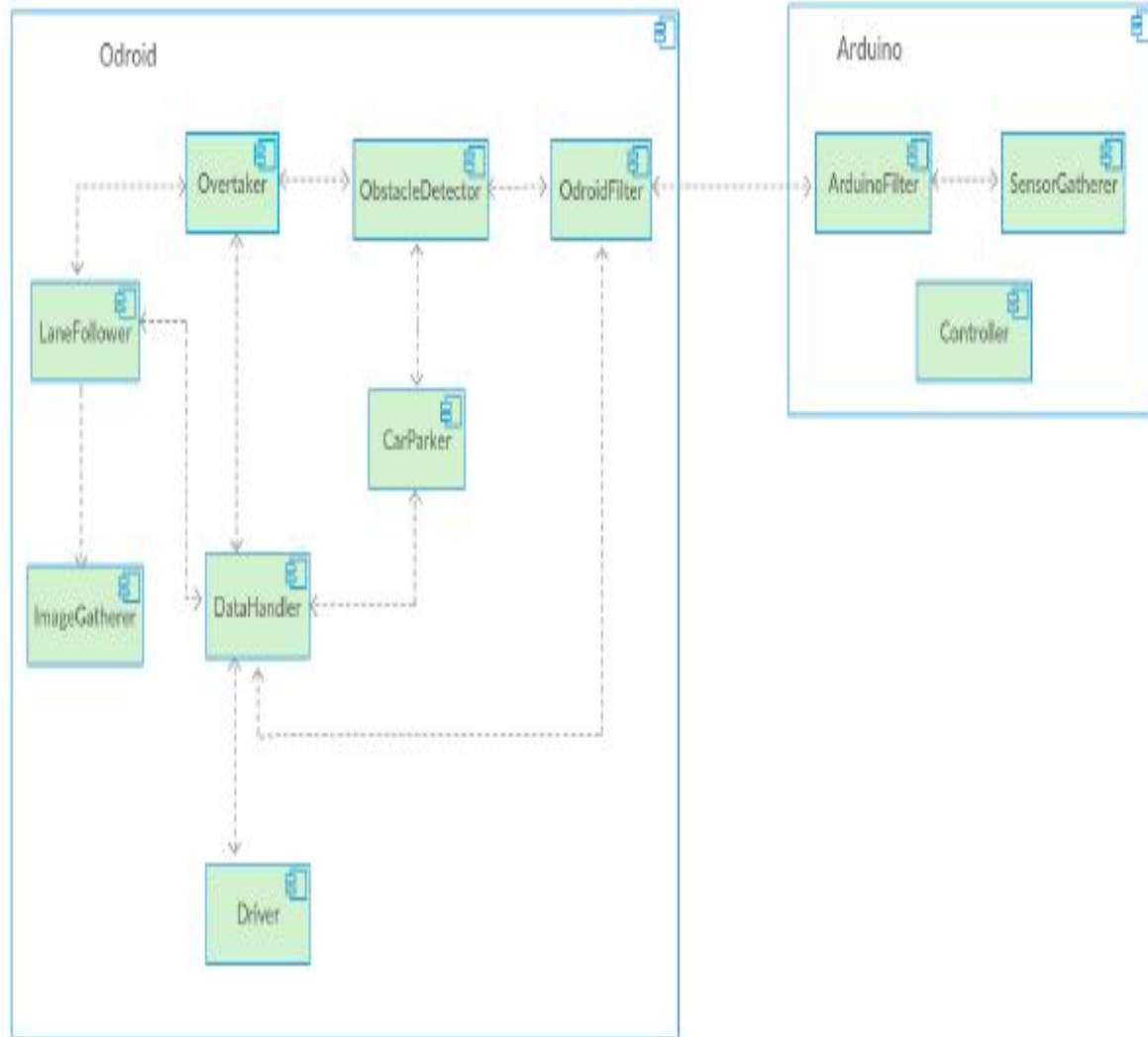
**Sensor and actor components**

Connection as block diagram

**Sensors and actors as UML**

# Refined System Architecture

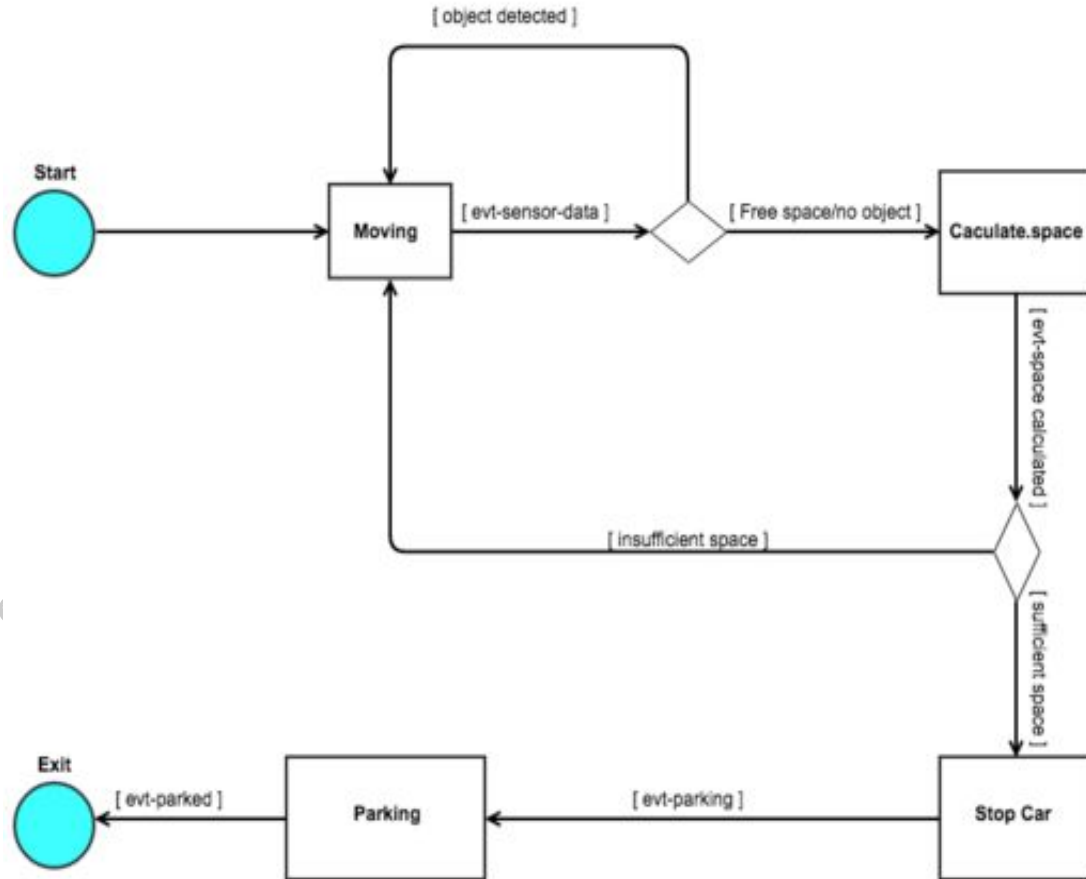
## UML Component Diagram



# Parking

## Planned state-machine for parking

Overview of planned and model test scenarios



# Parking

Planned state-machine for parking  
**Overview of planned and  
modeled test scenarios**

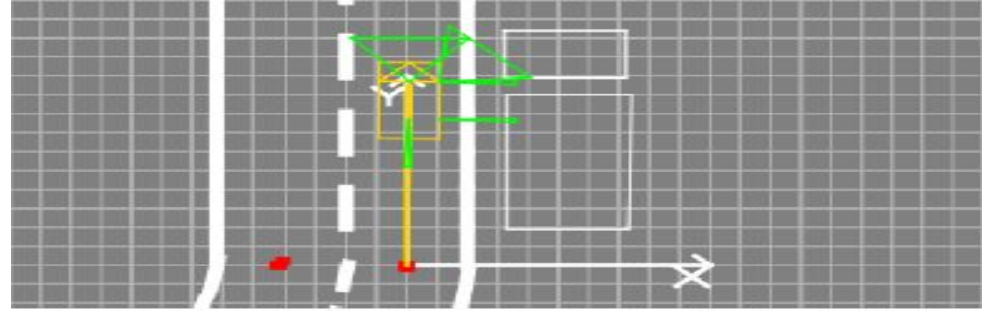


Figure 2: Parking with Insufficient Space

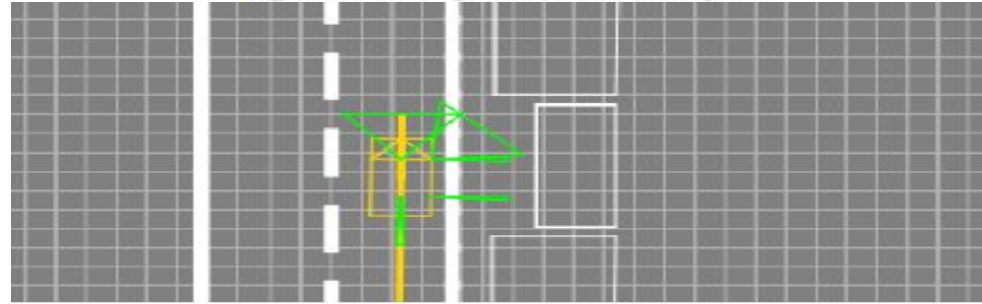


Figure 3: Parking with an Obstacle in Space

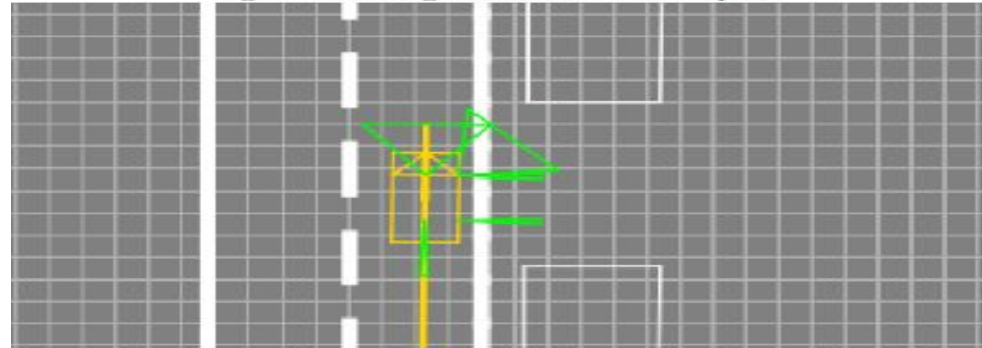
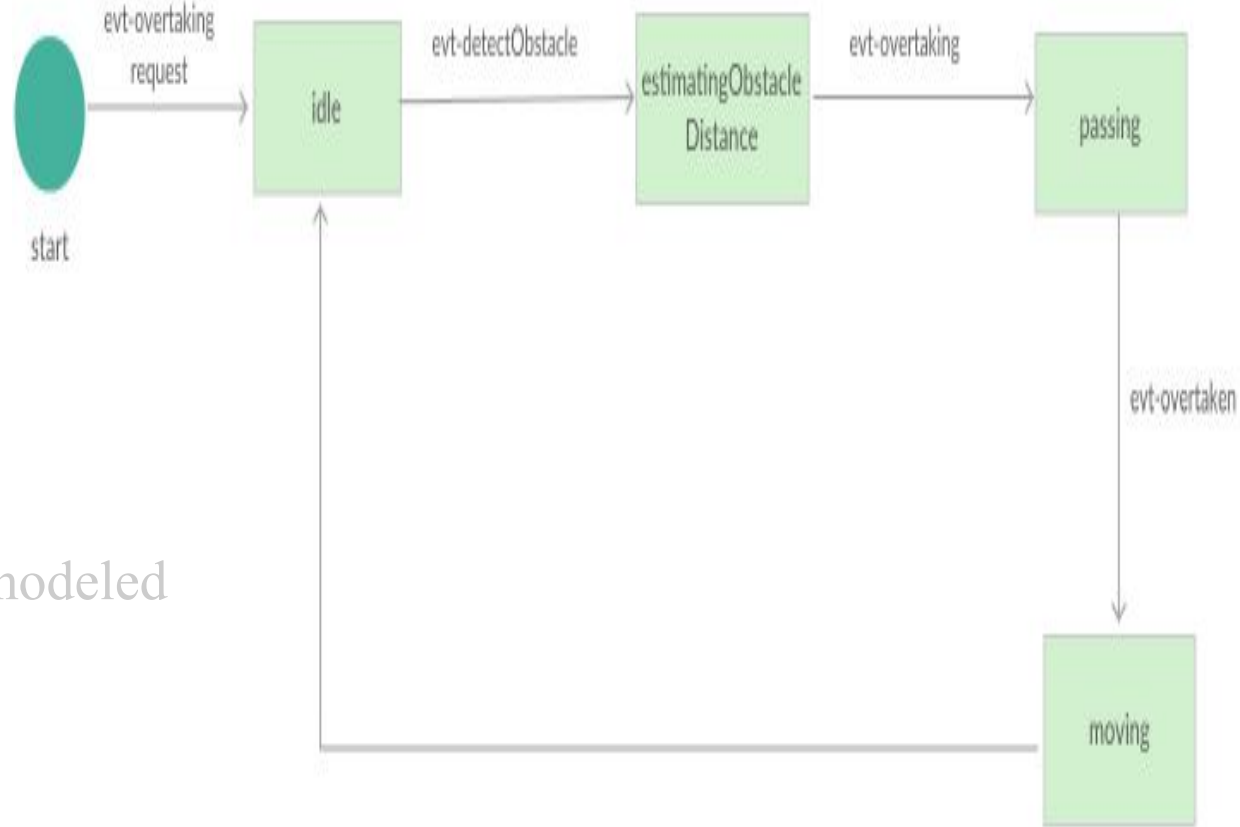


Figure 1: Parking with Sufficient Space

# Overtaking



## Planned state machine

Overview of planned and modeled test scenarios



# Overtaking

Planned state machine  
Overview of planned and  
modeled test scenarios

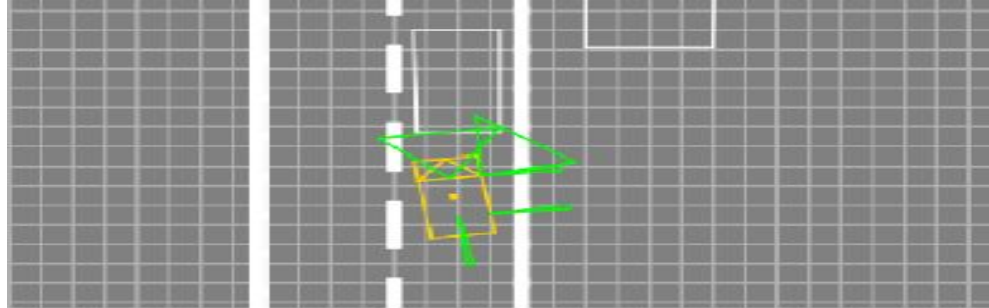


Figure 4: Overtaking on a straight road

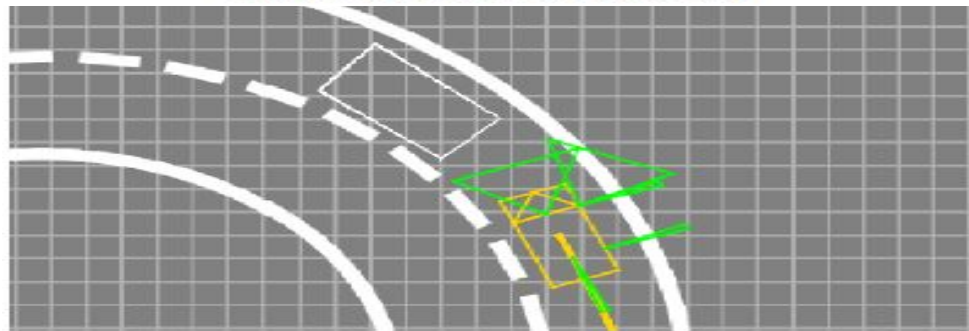


Figure 5: Overtaking on a curve

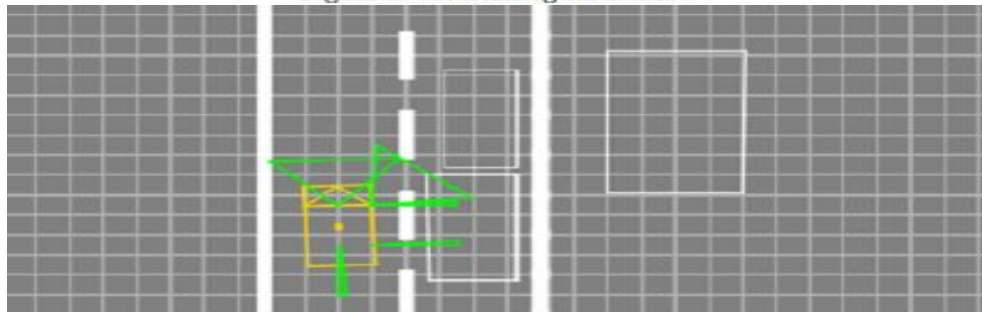


Figure 6: Overtaking two obstacles

# Lane Following

## General concept

Overview of planned and modeled  
test scenarios

*Gaussian Blur*

*Edge Detection*

*Canny Edge Detection*

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# Lane Following

General concept

**Overview of planned and modeled test scenarios**

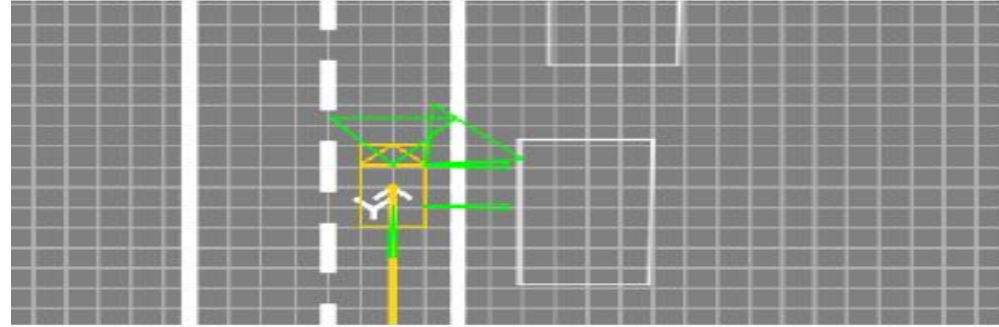


Figure 7: Lane Following on a straight road

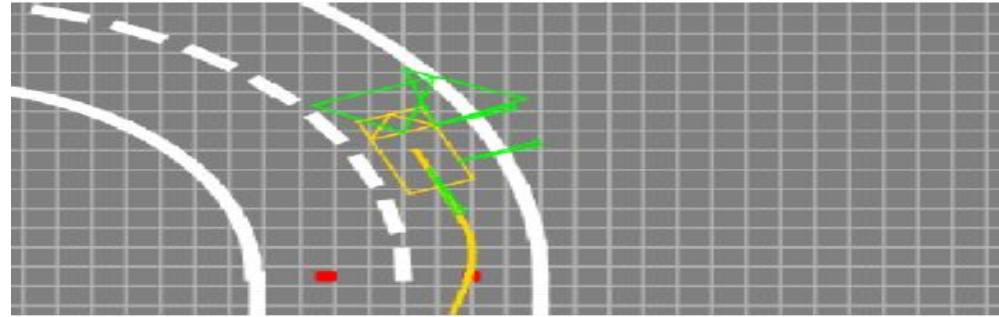


Figure 8: Lane Following on a curve

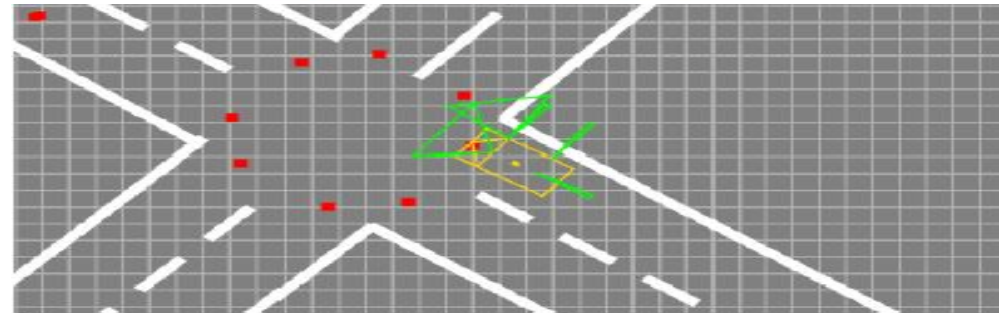
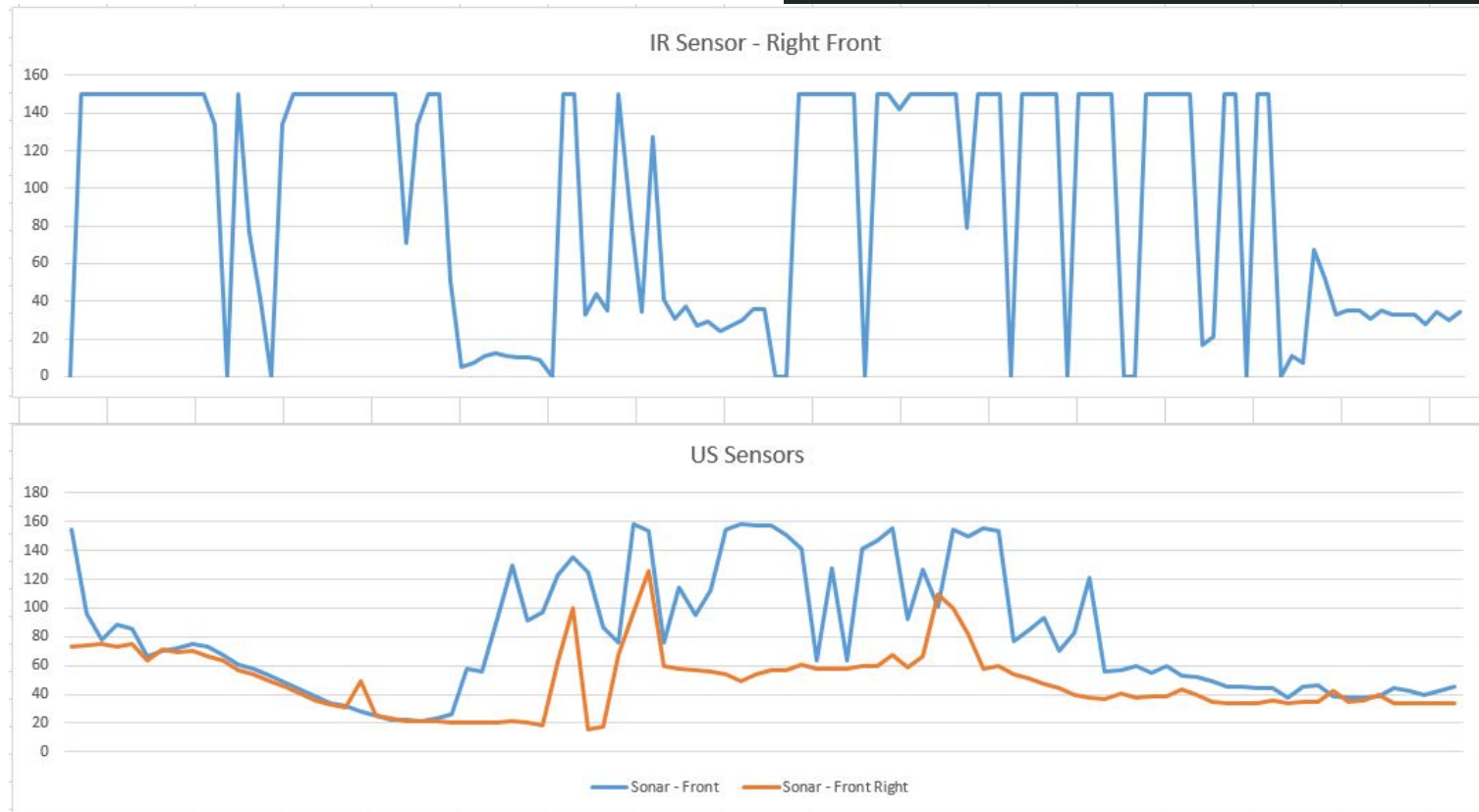


Figure 9: Lane Following through an intersection

# Sensor Recordings



# Thank You for listening

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