

# Robot Football

Eddie Hunckler

Matthew King

Stephen McAndrew

Kate Sanders

# Problem Description

Completing a quick and accurate pass

Select a target, determine distance and location, throw

Determining distance and location is biggest problem

Current method: camera with image processing

Our goal: develop an independent, robust positioning system



# Proposed Solution

Build an independent positioning system for the Quarterback and Wide Receiver robots

3 possible solutions:

Ultrasonic positioning

Wi-Fi positioning

Using inertial measurements

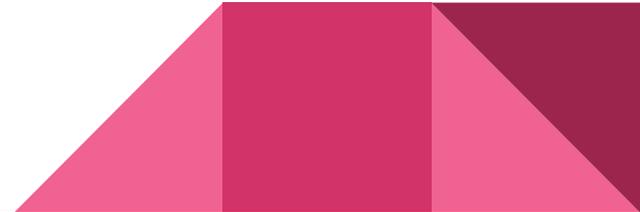


# Demonstrated Features

*Ability to determine location of each robot on the field*

*Independent operation except when communicating data*

*Compatibility with existing features*



# Available Technologies

RF signal strength for distance

Ultrasonic and Wi-Fi or RF communications for timing

Accelerometers and gyroscopes dead reckoning

Microcontrollers for integrating the setup



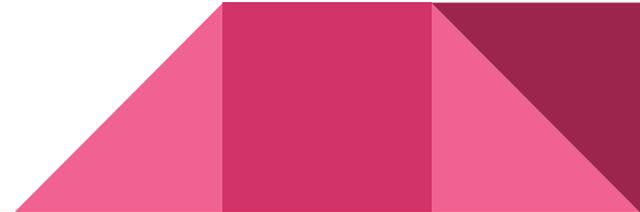
# Engineering Content

Characterize components to determine best fit

Design necessary analog circuits

Design a system of wireless communication

Compatibility and communication with existing systems





Questions?