

Team Number:

School Name: Taos High School

Area of Science: Mechanical Engineering

Project Title: Beating Botball with sensors

Problem Definition: What is the most optimal use of sensors in Botball?

Project Purpose: Every year in Botball there is the question of how many sensors to use, which sensors to use and where to place them. The purpose of this project will be to determine the optimal placement and range of sensors. I will use computer modeling in Matlab to determine the best range of each sensor. As there are many sensors I will not be testing digital sensors such as buttons. The sensors I will be using will IR- range finders and IR-reflection sensors. The tests will determine the optimal range, position and use for each in reference to the Botball table. The results will be actively worked into my schools robots for the 2017 competition, and specifically into the robot that I lead the development and building of.

Plan of Action: Initially I will perform my modelling in reference to the 2016 board, however once the 2017 board specs are uploaded along with the 2017 sensor specs, I will adjust my models to work for the new year. I will make all of my models in MatLab.

Team Members:

- Rowan Kinney

Sponsoring teacher:

- Tracy Galligan

Project Mentors:

- Need someone with experience in Matlab