

# ROBOTICS OUTREACH PROJECT

*Milestone 1:  
2/29/2020*

*Teaching Syllabus & Curriculum*

The main goal of this project is to develop an engineering education-backed syllabus and curriculum for students with no experience in robotics. Students will learn basic skills in design, programming, electrical hardware, and safety.

## Winter 2020

*Milestone 2:*

*3/9/2020*

*Design, Code, & Assemble the Prototype*

A working prototype of the robot will be fabricated and assembled by the end of Winter quarter. Fabrication of prototype has been completed. Currently testing the code for movement strategy.

## Spring 2020

*Milestone 1:*

*4/1/20*

*Safety & Instruction Manuals and Website for Teachers*

The goal is to provide comprehensive instruction and safety manuals for teachers without a robotics background. The website will be finalized for outreach access.

*Milestone 2:*

*6/1/20*

*Final version of the Robot and Claw*

The team will add a claw to the design, while minimizing costs. Infrared sensors will be added to autonomously identify objects. A PCB will be used to reduce the weight and complexity of the wiring. A magnetometer will be added to incorporate a level of complexity for advanced students.

*Milestone 1:*

*7/1/20*

*Safety & Instruction Manuals and Website for Students*

Supplemental material will be added to the curriculum for higher level users that will embark on the endeavor independently. Material will be developed to teach users without programming experience. Videos will be developed for the website.

## Future Works

*Milestone 2:*

*8/1/20*

*Marketing, Funding, & Outreach*

Funding for outreach programs will be investigated, as well as finding partners to purchase equipment in bulk.