

Team MANGO PROJECT PROPOSAL

EE296

“Drop Baby Drop”



Overview

- Meet the Team
- Motivation
- Goals for this Semester
- Overview of Project

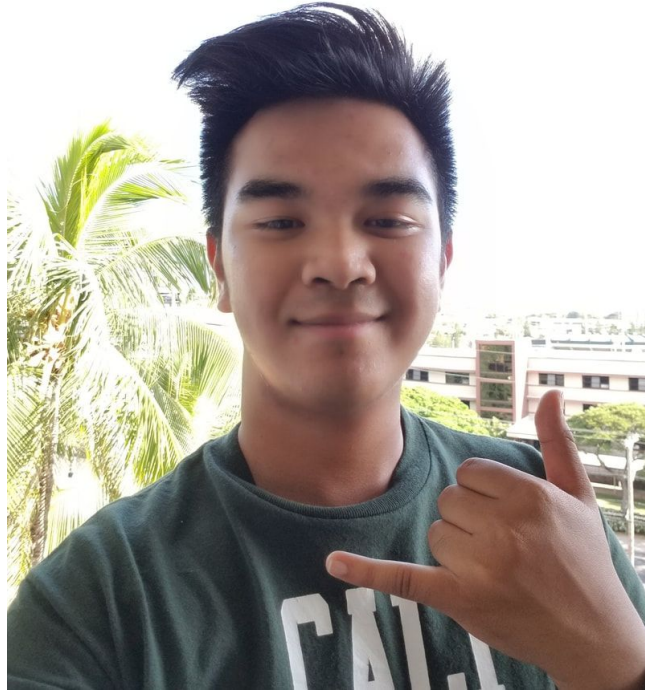


Meet the Team

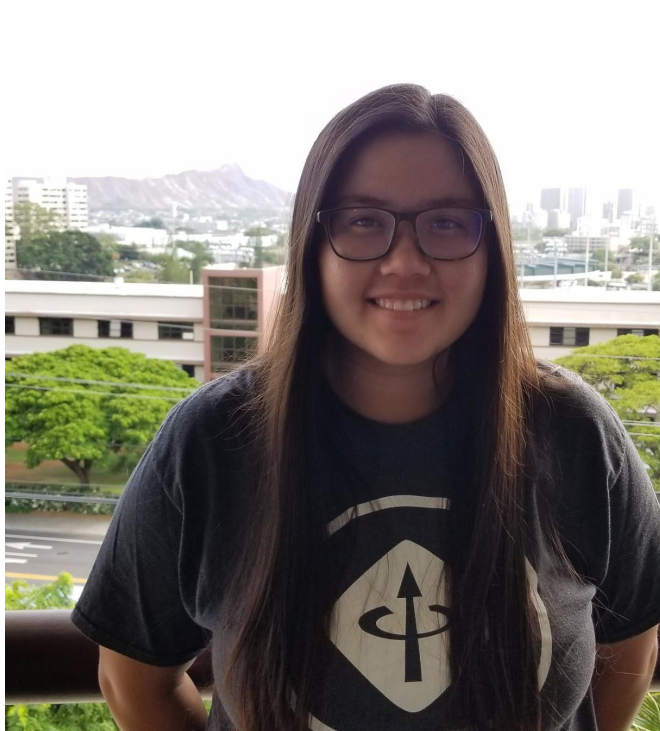
Mark Cacal

Standing: Junior

Track: Electro-physics



Meet the Team



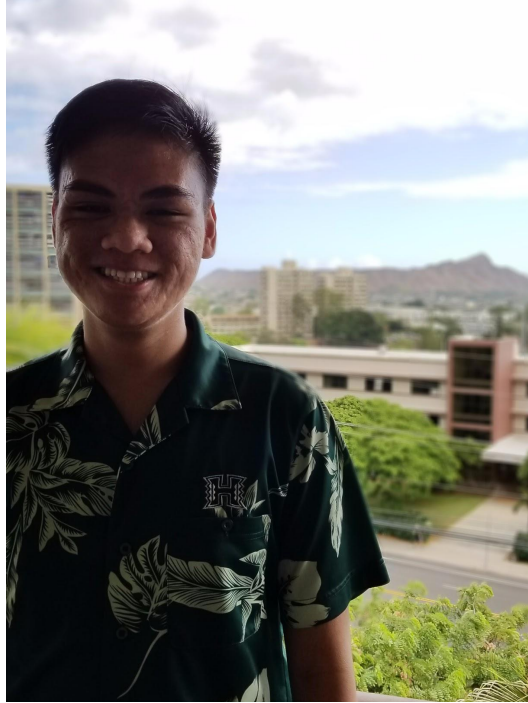
Emily Kane

Standing: Junior

Track: Electro-physics



Meet the Team



Josh Renzo Claudio

Standing: Sophomore

Track: Electro-physics



Motivation

- Work with renewable energy technology
- To help advance Hawaii's Clean Energy Initiative
 - To become 100% reliant on renewable energy sources
- Gain experience working on a team project



Goals for this Semester

- Our overall goal is to create a self sustaining weatherbox.
- Some soft skill we would like to acquire and improve on:
 - Soldering
 - Arduino
 - Teamwork
 - Organization
 - Presentation
 - Communication
 - Time Management



Overview of Project

- Design and fabricate a weatherbox
- Requirements:
 - Run on photovoltaic panels
 - Collect data on weather conditions at various locations around campus



SCEL

Smart Campus Energy Laboratory



Semester Timeline

Mark Cacal, Josh Claudio, Emily Kane		Team Mango																											
Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14															
Day	9/6	9/8	9/11	9/13	9/18	9/20	9/25	9/27	10/2	10/4	10/9	10/11	10/16	10/18	10/23	10/25	10/30	11/1	11/6	11/8	11/13	11/15	11/20	11/22	11/27	11/29	12/4	12/6	
Tutorials																													
Arduino																													
Github																													
Eagle																													
Presentations																													
Proposal Presentation						09/23/17																							
Preliminary Design Review												10/14/17																	
Critical Review																				11/10/17									
Final Presentation																												12/02/17	
Modules																													
Microprocessor																													
Transceiver																													
Antenna																													
Charging Circuit																													
Battery																													
Temperature Sensor																													
Solar Irradiance Sensor																													
Humidity Sensor																													
Pressure Sensor																													
Solar Panel																													
Build																													
System Integration																													
Overall System Firmware																													
Design/Print PCB																													
Housing																													
Testing																													
Debug																													
Final Report																													



Questions/Comments

