

Independently Ran Renewable Integrated System

Objective:

This projects focus is to design an affordable attachment to current cross walks to help make crosswalks safer for pedestrians. The attachment includes flashing LEDs, self-powered unit, and adjustable mounting.

Background:

Many of the crosswalks signs around campus lack cautionary flashing LEDs below the signs to alert drivers of pedestrians entering crosswalks.

Value Proposition:

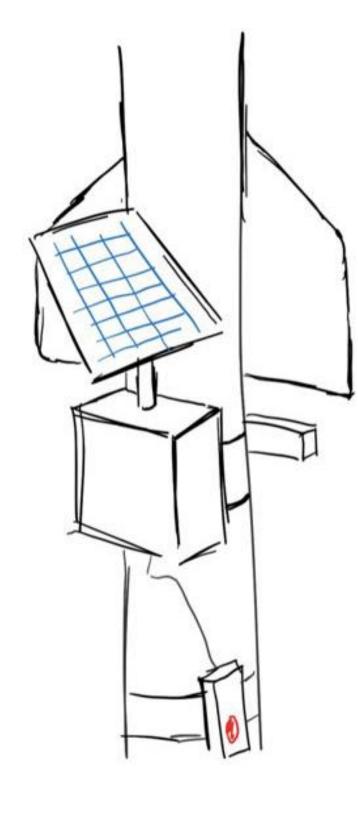
Current market solutions require the removal of existing signs and installation of more expensive alternatives. This project will save money by adding to existing signs without the need for extensive construction.

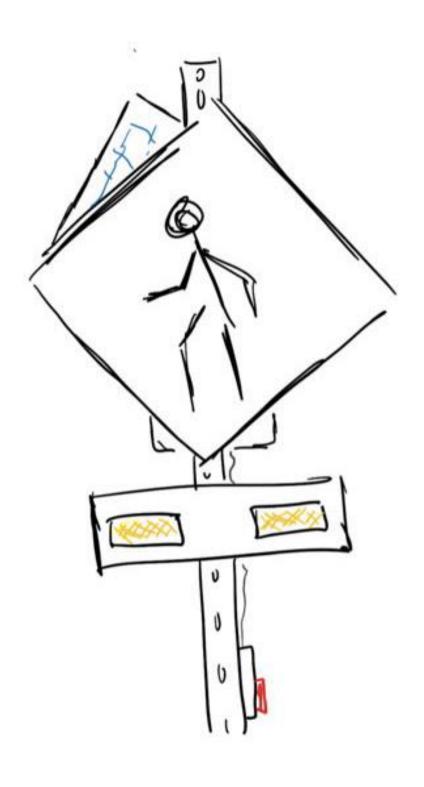
Key Requirements:

- 3-5 year lifespan based on battery and PV life
- Transmit and Receive signals from juxtaposed units
- Power a flashing LEDs light bar
- Ability to modify lighting timing for length of crosswalk
- Self-Powered Unit
- Attach to multiple diameters of street poles and signposts

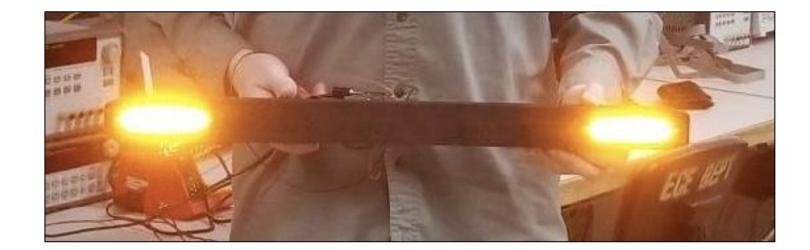
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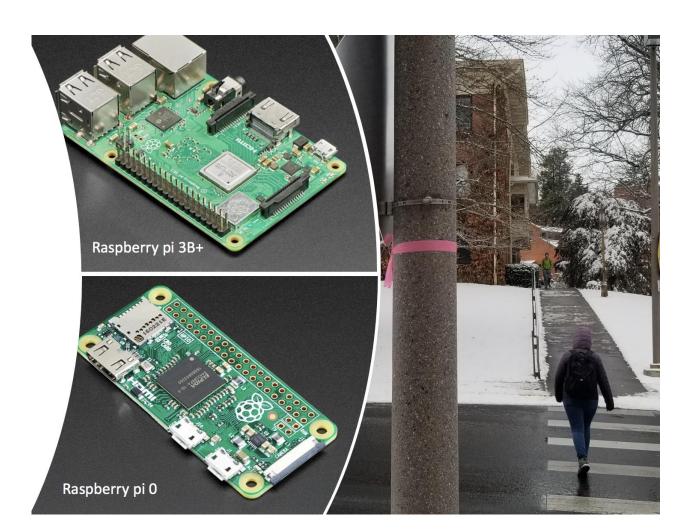
Design Setup:

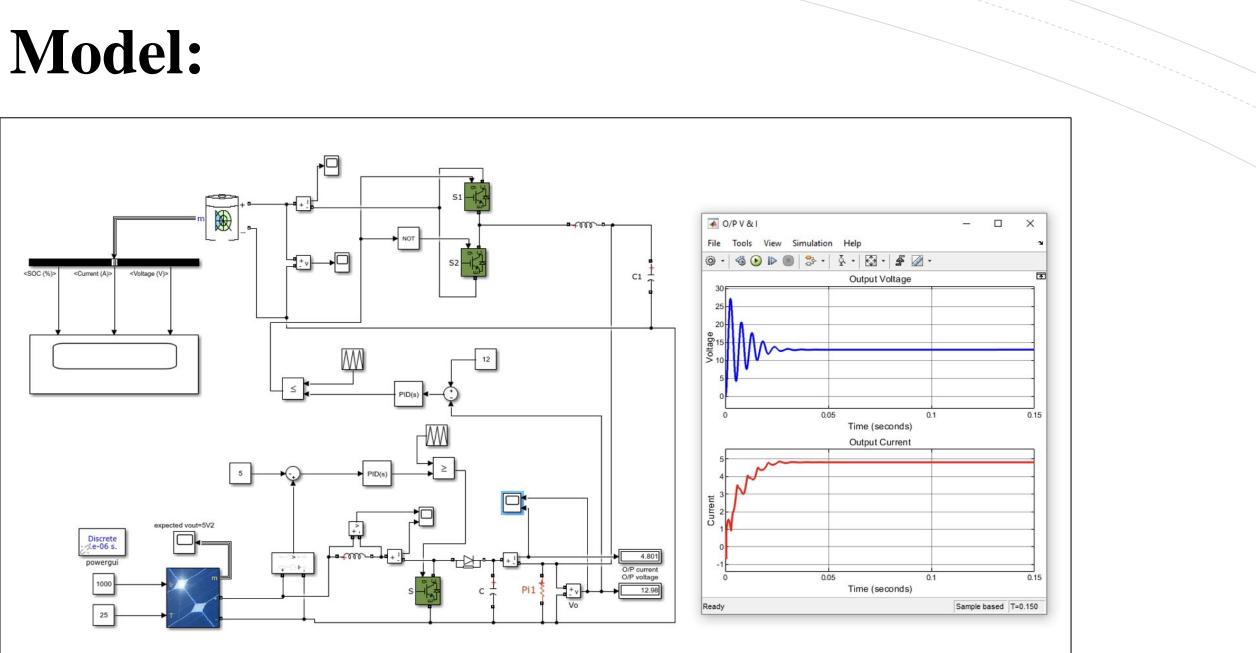




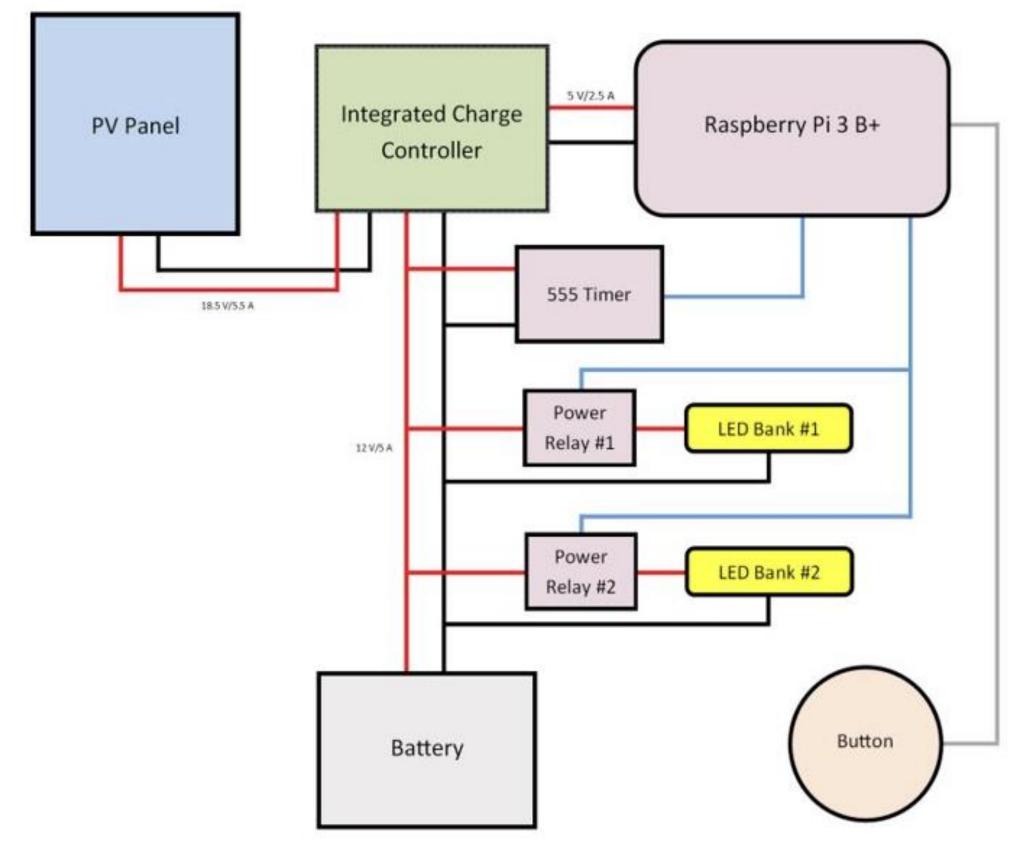








Wiring Setup:



Acknowledgements:

Lead Instructor: Brian Johnson Graduate Mentors: Abdallah Smadi Phillip Hagen



