Proposal Presentation

Verification Subsystem

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Introduction

- May Chen (Team Lead)
  - Senior
  - EP Track
  - Interests:
    - Photography, Travel, Food
- Kristie Lee
  - Senior
  - EP Track
  - Interests:
    - Dogs, TV, Ice Cream

Verification Subsystem Overview

- Quality Assurance Team
- Verify documentation of designs
- Analyze and validate processes through tests
  - Individual components
  - Hardware Design, schematics
  - Software
- Make sure product meets specifications and standards

Semester Goals

- Create and document testing plans for hardware and software
- Successfully assemble Apple
- Design and build verification board for testing

Approach - Testing Plans

1. Understand test requirements
2. Obtain ideal test results and measurements
3. Determine the best way to test sensors and components through experiments
4. Create set procedure for tests
5. Verify procedure
6. Officially document procedure and ideal data

Approach - Assembling Apple

1. Thoroughly review documentation
    - Datasheets
2. Obtain required parts
3. Learn necessary software
    - Arduino
4. Assemble
5. Test successfully assembled hardware
6. Document difficulties
7. Make recommendations for documentation

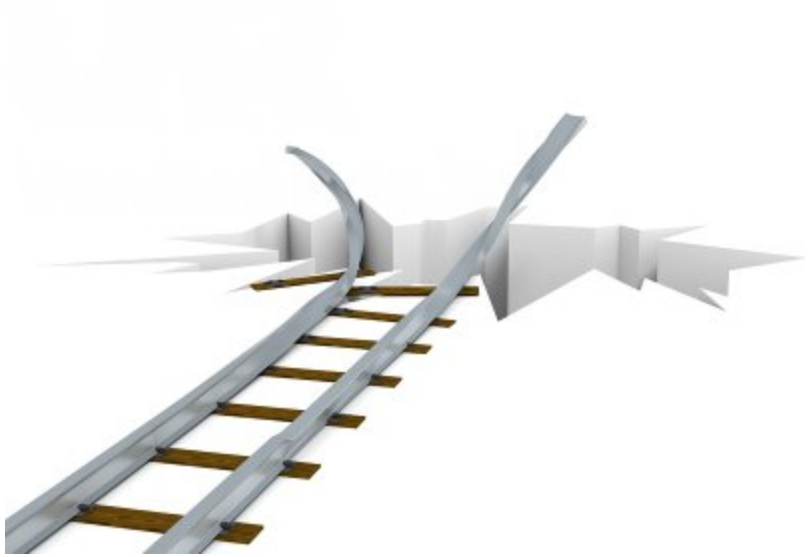
Approach - Verification Board

1. Research hardware options
2. Determine best implementation for verification board
3. Design verification board
    - EAGLE
4. Obtain required parts
5. Assemble
6. Program
7. Test

Potential Problems

- Not enough documentation to start testing Apple

- Verification board
  - How to implement
  - Part selection



Learning Expectations

- Effectively analyze datasheets
- Improve EAGLE skills
- How to test hardware
- Renewable energy
  - Photovoltaic (PV)

Current Progress

- Reading documentation of Apple
- Reading datasheets on Apple’s components

Conclusion

- Quality Assurance/Test engineers
- Measures of success
  - Documented hardware test plans
  - Assembled Apple
  - Verification board

Thank you!