Project Planning

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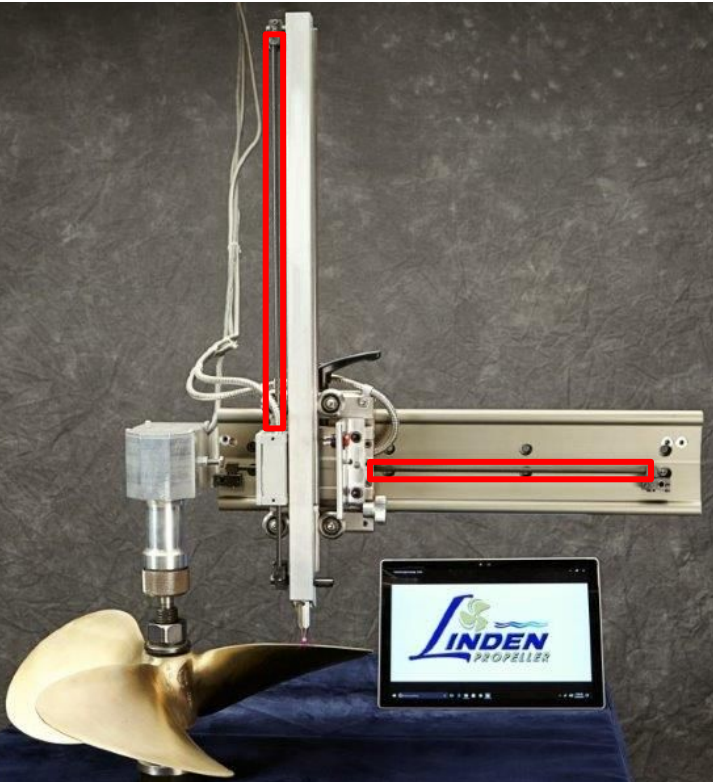
Project: Laser Scan Readings for Propeller Measurement

Group: sdmay25-34

Project Overview



Project Name: Laser Scan Readings for Propeller Measurement

Goal: Replacing propeller measurement system of Linden Propeller

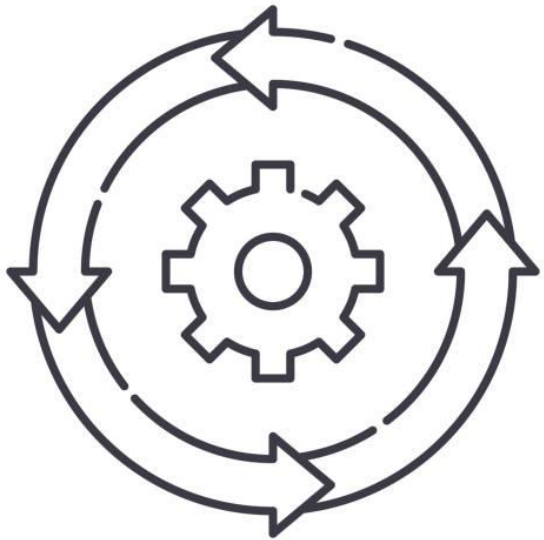
Reason for change:

- Carbon fiber rods attached to scales are brittle
- Expensive to replace/repair
- Extended lead times

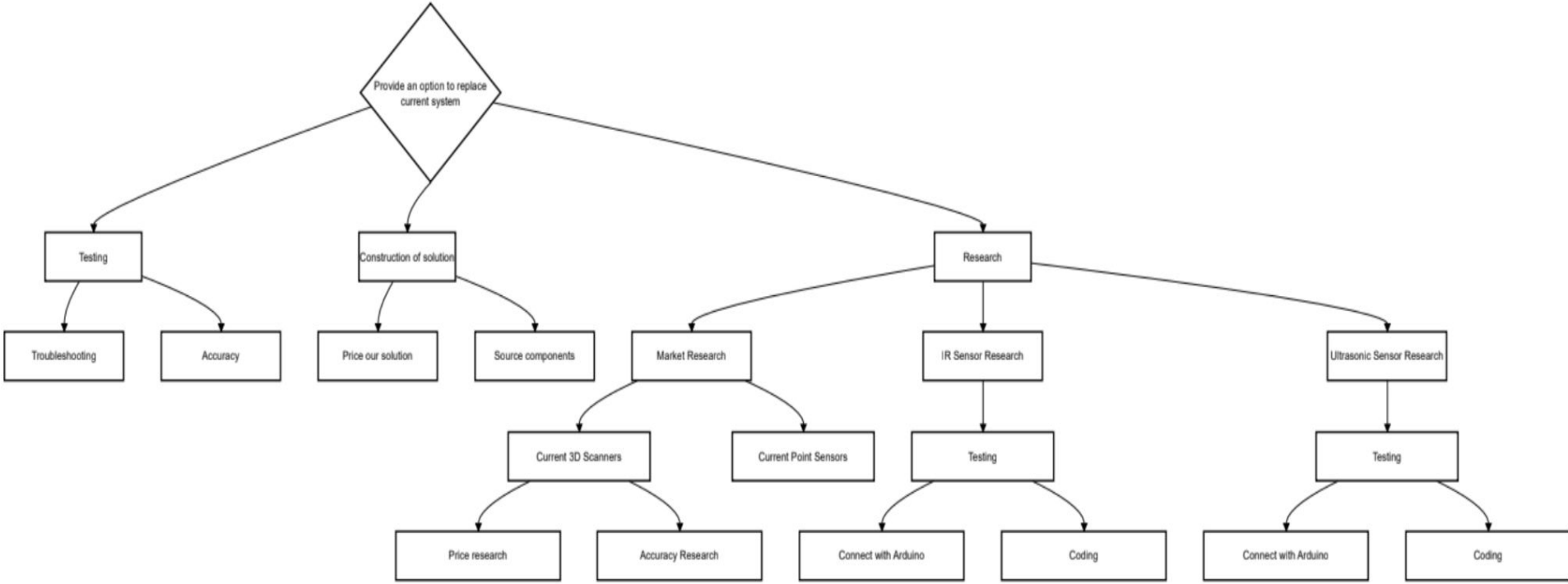
Project Management Style and Justifications

Agile Management Style

- Iterative Development
- Flexibility in Design
- Incremental Testing
- Quick Feedback Loops



Task Decomposition



Metrics

- Must be accurate to 5 micrometers
- Must be mounted on current setup
- Must be able to connect to current system

Evaluation Criteria

- Must match his current system in accuracy
- Must be durable

Key Milestones

- **Proof of Concept for X or Y Axis:** Successfully develop and test a working prototype of the ultrasonic sensor for either the X-axis or Y-axis to demonstrate functionality and feasibility.
- **Identify a Cost-Effective Sensor:** Find a sensor that meets technical requirements and fits within the budget (under $1,000), ensuring it's a viable option that the client would purchase.
- **Acquire the Chosen Sensor:** Procure the selected sensor for testing and integration into the system, ensuring it's available for further development and implementation.
- **Deliver Final Solution to Customer:** Complete the final design and implementation of the measurement system, ensuring it fully meets the customer's requirements and is ready for deployment.

Key Risks and Risk Mitigation Strategies

Not getting a sensor that meets Gary's criteria

- Loss of Competitiveness
- Failure to Meet Customer Expectations

Constantly research new technology and propose viable solutions to client

Work with companies to get university discounts

Conclusions

- We are making steady progress with our current management system towards our goals and milestones
- We have been circumventing and solving our problems by working with our client, advisor, and each other