EE/CprE/SE 492 STATUS REPORT 05
April 3rd 2025
Group number: 25-34
Project title: Laser Scan Readings for Propeller Measurement
Client &/Advisor: Linden Propeller (Gary Linden) / Dr. Mani Mina

## Team Members/Role

| **Name:** | **Role:** |
|---|---|
| Alan Whitehead | Testing |
| Elias Colsch | Client interaction |
| Denny Dang | Individual Component Design |

## Past Week Accomplishments

| **Name** | **Past Contributions** |
|---|---|
| Alan Whitehead | I continued working on system integration as we awaited the arrival of our final KEYENCE sensor. In the meantime, I collaborated with Denny Dang, who is leading the CAD portion of our project. I assisted him in designing the supporting bracket for the sensor within the system. |
| Elias Colsch | I continued to provide input on the design of the mounting bracket. I used a digital caliper to measure the dimensions of Mr. Linden's setup for Denny to create a precise model of our bracket design. |
| Denny Dang | Contacted Gary to get his mounting arm delivered to ETG in Coover and requested times to use the 3D scanners in SICTR for simple modeling of the mounting arm. I contacted Kyle regarding updates and additional questions regarding the project. We started actual designs with the laser we are planning on purchasing. |

# Weekly Summary:

This week we focused on finishing the 3D design of our bracket as well as checking with Mr. Linden and Mr. Downey for progress updates. Denny completed our 3D bracket in AutoDesk Inventor, seen in Figure 1, and Elias emailed Mr. Linden for an update. The update consisted of Mr. Linden saying he would contact Mr. Downey to settle on a price and purchase a sensor. As of the writing of this report, there have not been any additional updates. Our bracket design focuses on durability. Our design has a supporting section on the bottom of the bracket to ensure that once the laser is put into the bracket, the laser will remain steady throughout the measurement process.

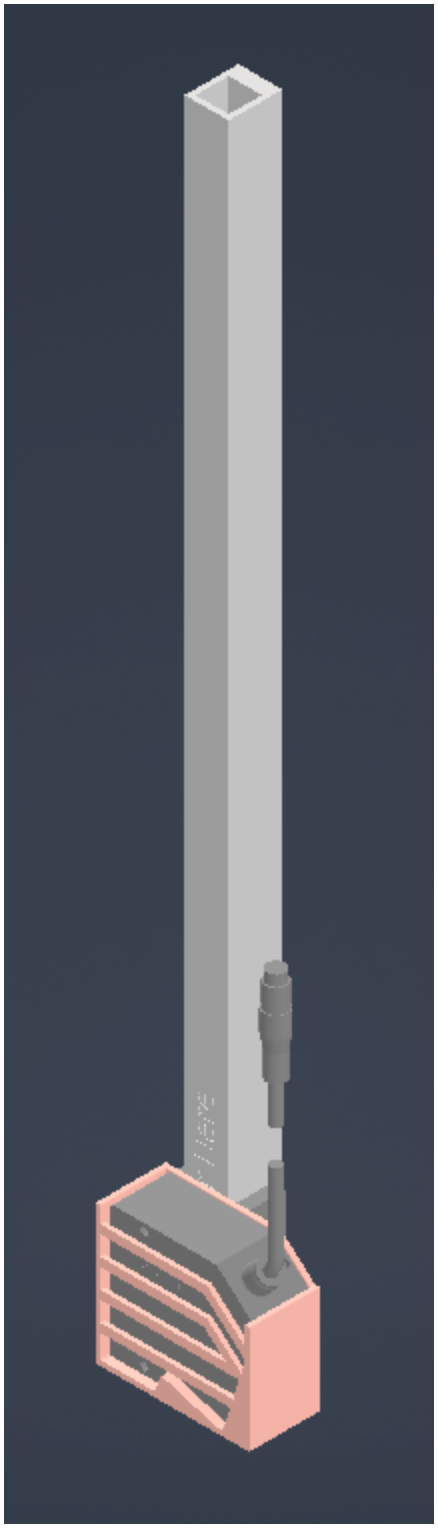

Figure 1: 3D Model of bracket design

| Name | Individual Contributions | Hours this week | HOURS Cumulative |
|---|---|---|---|
| Alan Whitehead | It turns out that Mr. Linden just recently got back from vacation so this delayed the contractual negotiation. So we are beginning this process now unfortunately. We are working on getting Kyle to give an effective offer. | 5 | 25 |
| Elias Colsch | I got in contact with Mr. Linden for progress updates as well as providing feedback about our 3D bracket design. | 6 | 29 |
| Denny Dang | I worked on 3D modeling the prototype for the laser device mounting bracket. Kept in contact with Kyle regarding any updates on the current status of our project. | 6 | 29 |

# Plans for the upcoming week

| Name | Future Contributions |
|---|---|
| Alan Whitehead | I'm going to work on the data fusion concept as a backup because we are no longer sure if we will be able to get his project done. Our advisor recommended we have this concept as a backup so I will start the process. |
| Elias Colsch | I will contact Mr. Linden and Mr. Downey to finalize the purchase of a sensor and determine how to manage our project's budget. I will also assist in getting the bracket printed out and mounted to the mounting arm Mr. Linden sent us. |
| Denny Dang | I will continue to work on finalizing our 3D model. I will create a technical schematic for our customer so he can integrate it into his setup. |