

Weekly reports are to be emailed to atbecker@uh.edu by 5:00pm on Tuesdays. The purpose of a weekly report is to: (1) give you text and images for your papers, thesis, and dissertation, (2) document progress, (3) identify if you are stuck or need resources.

Weekly report

1. My *Goals* from last week

- Readjusting the corner piece
- Researching and building a control box
- Taking a successful test flight

2. My *Accomplishments* this week

- a. Project 1: Mosquitos vs. Drones
 - deliverable 1. *Adjusting the corner piece*
 - Corner Piece: the space for the nuts need to be resized to get a flush fit, the holes for the fiber glass need to be separated further, and the hole for the rope needs to be moved further out

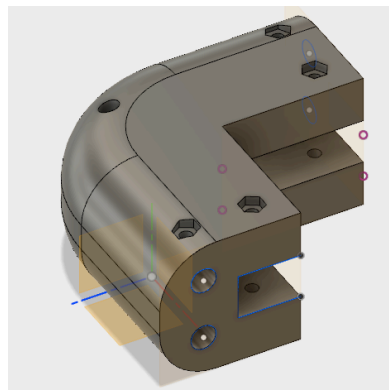


Figure 1: Updated corner piece

- deliverable 2. *Construction of control box*
 - Constructed an aluminum box by cutting the box shape with a pair of tin spins and then hammering the aluminum into the shape needed
 - Used small metal screws and nuts to hold the box together, and added hinges to be able to open/close the lid

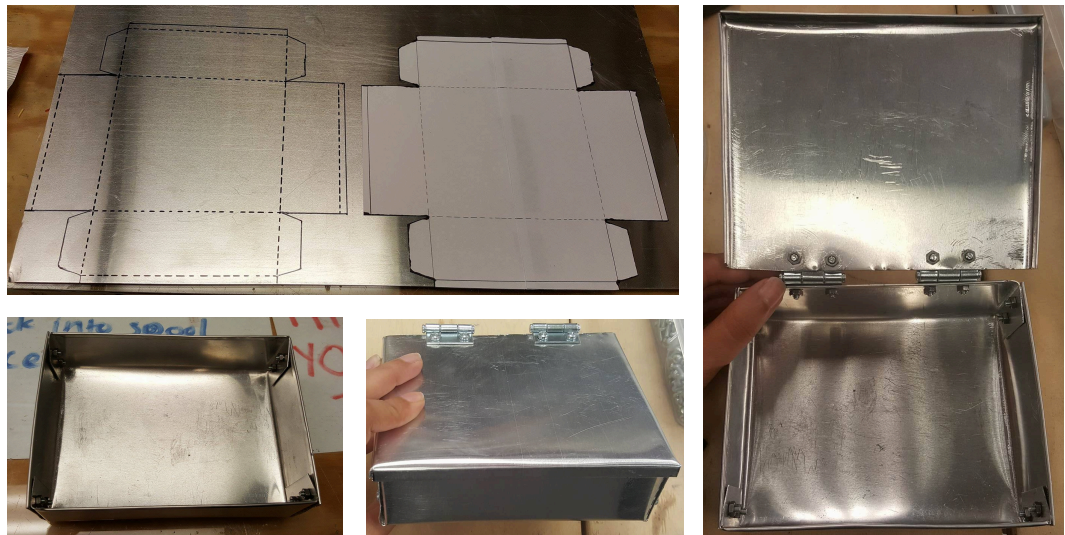


Figure 2: Building a Control Box

- deliverable 3. *Taking the first official test flight*
 - Control box ended up being too small to fit one of the batteries, and the I/O problem seemed to not be due EMI – the box may not be necessary
 - I/O error still exists, most likely due to the net and the raspberry pi sharing a common ground
 - Data can still be logged since the program bypasses the error and keeps running the program
 - <https://youtu.be/-fhtWawzLSc> → link to flight test

3. My Goals for next week

- Exploring the idea of expanding the net to have a bigger efficient area, but lighter weight
- Building a smaller net to run tests with dead mosquitos
- Gathering data from 10+ flights for the paper
- Reviewing Mary's MatLab work
 - a. Meeting with Dr. Becker on Thursday, August 10th at 3pm

4. What I need Dr. Becker to do:

- a. Overview what is needed for the grade for this summer's special project