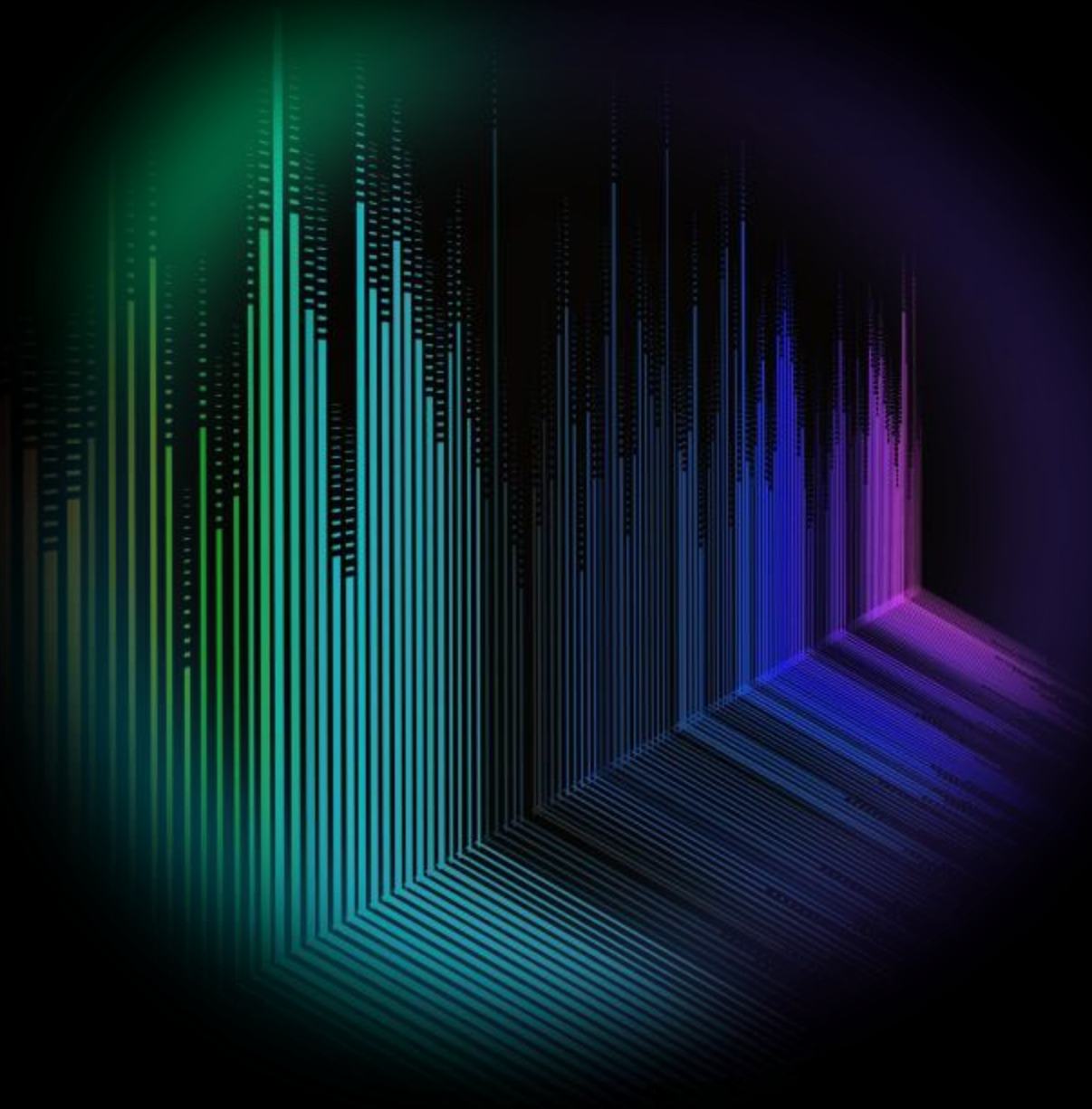


# Smart Cooler



WEEK 26 JAN27 - FEB 2

# Progress Made

- Tested several systems and functions.
- Researched Locking Mechanism.
- Discussed Timeline adjustments.
- Prepared Project Report for Editing
- Designed and Printed GPS Bracket

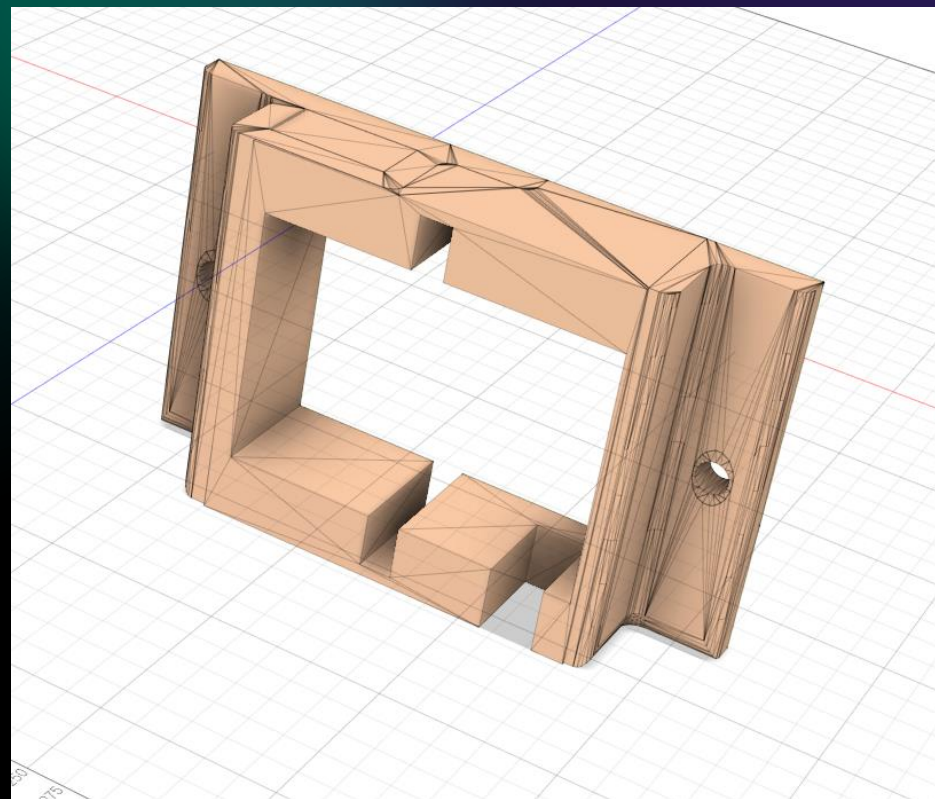
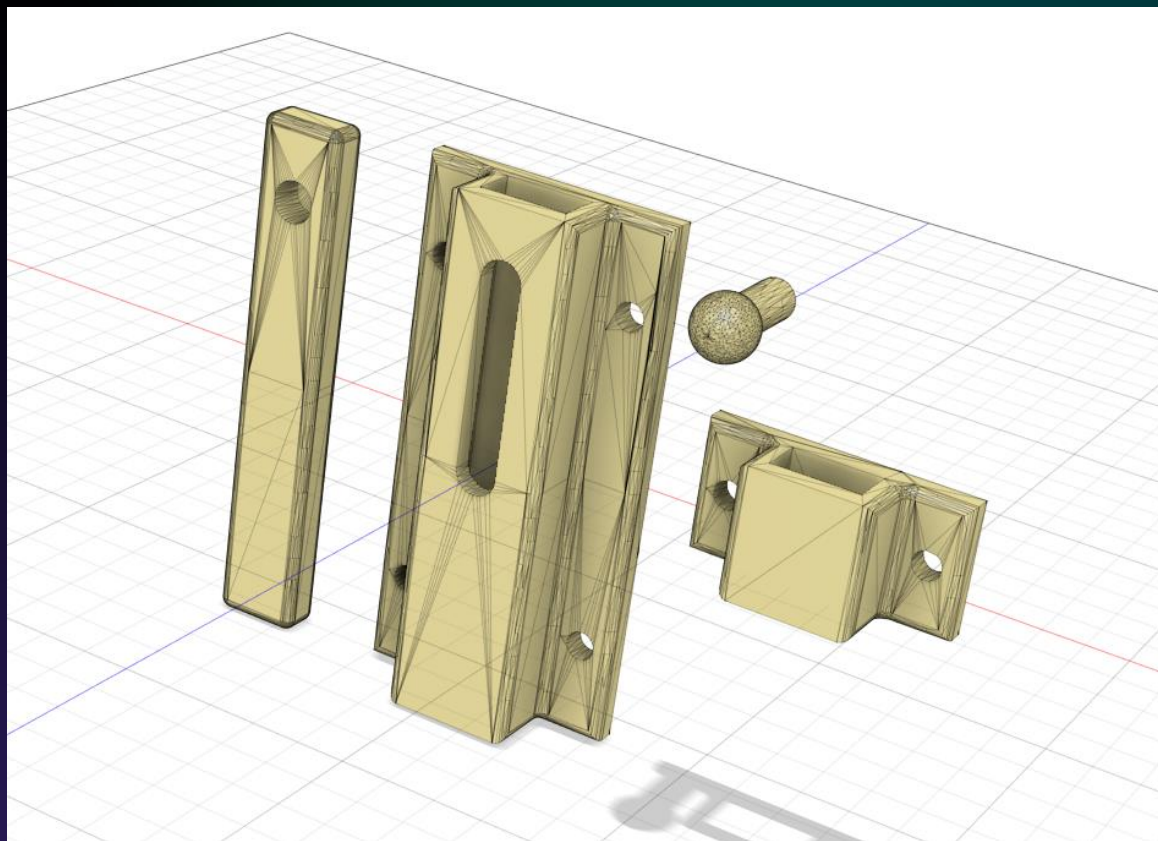
# Testing Results

- Completely drained system and tested battery capacity.
  - System takes 3.5 hours to charge to max capacity
  - Max charge seen on batteries is 14.57 V
- Tested Bluetooth Connectivity.
  - System maintains connectivity at a range of 45ft or 15m
  - System connectivity is unaffected by walls
  - Speakers can clearly be heard inside at max connectivity range even while outside

# Bluetooth Connectivity Test

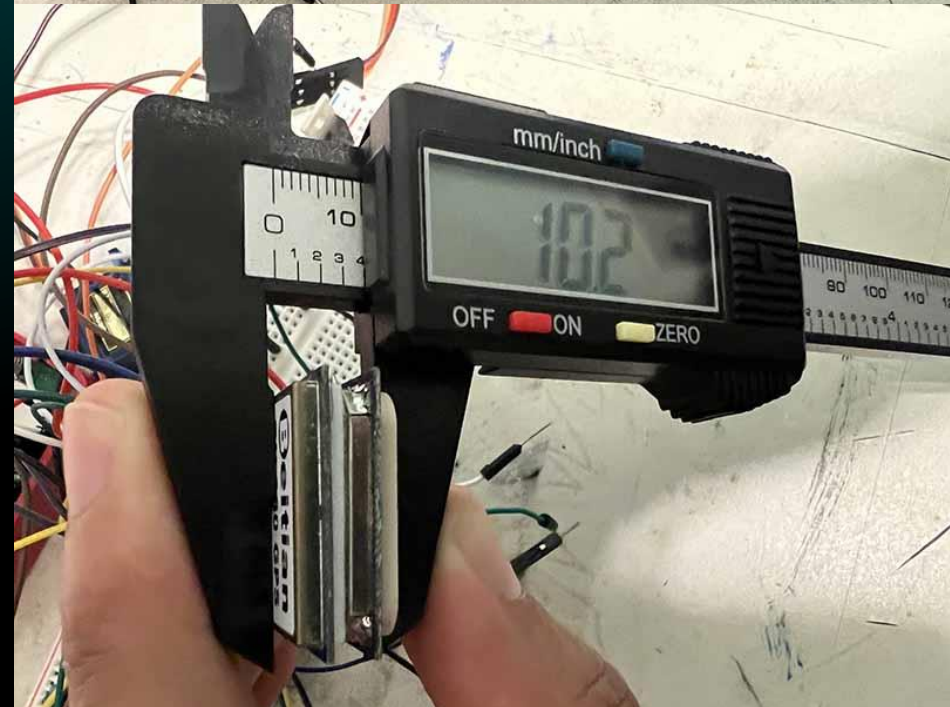
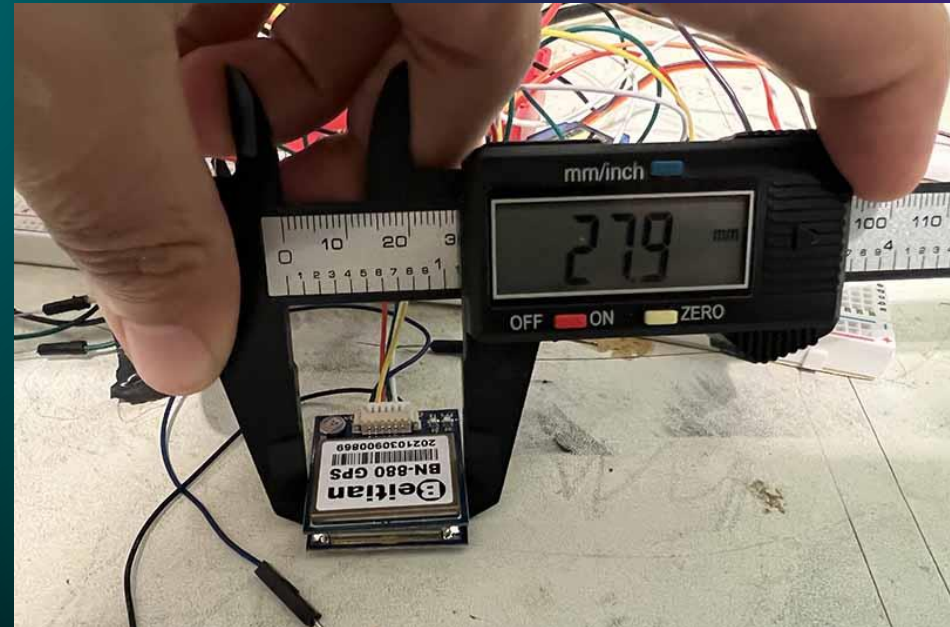


# Initial Part Models



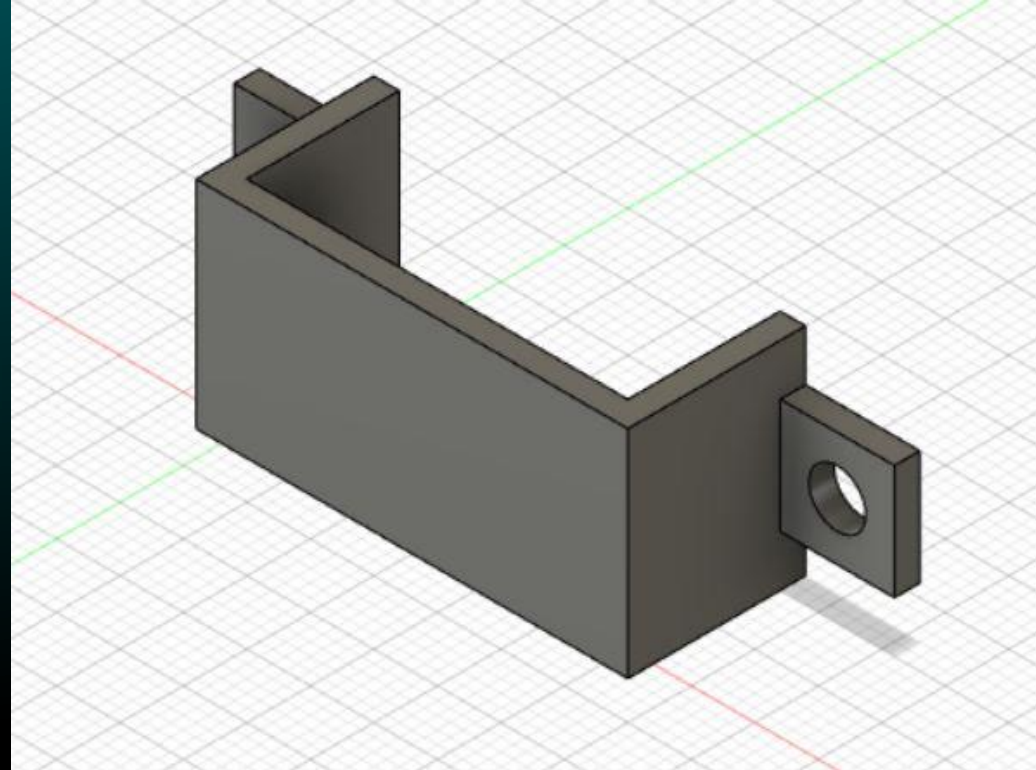
# GPS Bracket

- The GPS module was not secured, so a bracket was designed to hold it in place.
- The GPS module was first measured using a digital caliper. The measurements were about 28mm x 10mm



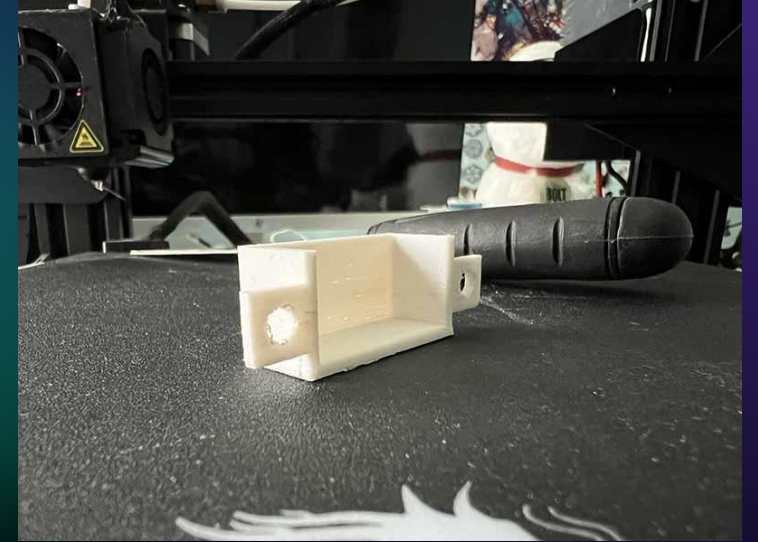
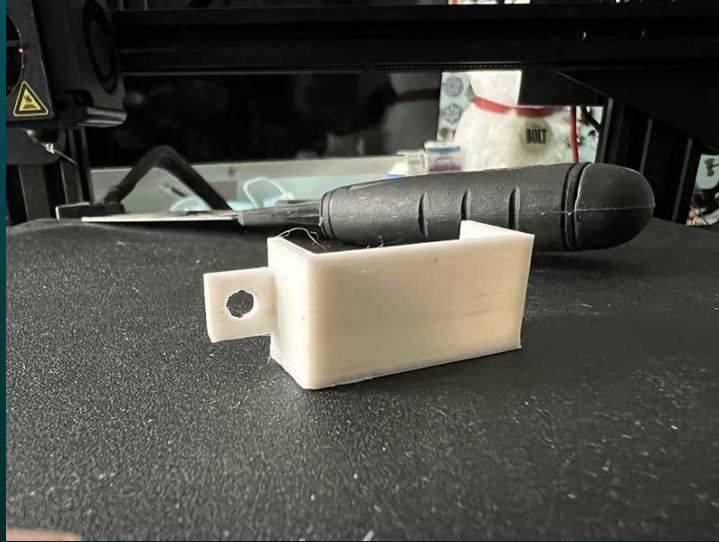
# GPS Bracket

- Next, the bracket was designed in Fusion 360
- The bracket was designed to hold the GPS module, and be able to be screwed in using 4.5mm diameter screw holes.



# GPS Bracket

- The bracket was printed using a Creality Ender 3 printer.
- The material used was ABS plastic.
- It took approximately 30 minutes to print.





# Project Report

- The project report was prepared for editing by uploading it to OneDrive
- The Table of Contents was updated
  - Chapter 1 contains the introduction and proposed systems.
  - Chapter 2 is now Background Research, and contains an introduction, software research, hardware research, and the power budget
  - Chapter 3 has been added as the contribution section. It includes the introduction, design integration and implementation, design troubleshooting and results, and discussion of success and failure rates.
  - What was originally Chapter 3 is now Chapter 4, the Non-Technical Issues
  - What was originally Chapter 4 is now Chapter 5, the Conclusion
  - The page numbers are not updated as that will change



# Goals For Next Meeting

- Design parts for 3d Printing
- Print first round of parts and test for fitment
- Continue work on Project Report
- Continue work on mobile app