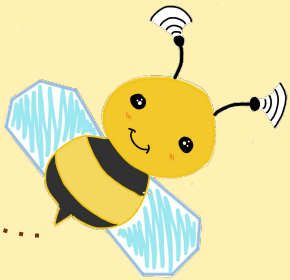
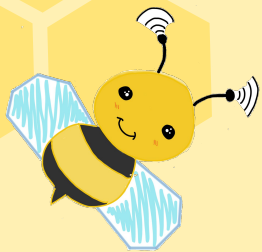


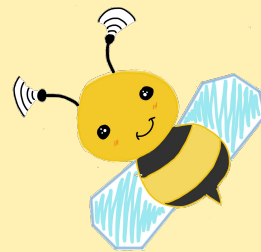
# Proposal Presentation

Team Bumblebee  
Spring 2021





# Members



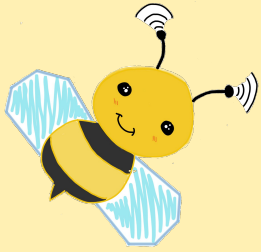
**Brian Griswold**  
EE396, EE- EP

**Francis Sonoda**  
EE496, EE- EP

**Thant Thiri**  
EE396, EE- EP

**Lauryn Corpuz**  
EE496, EE-EP

**Yin Aye**  
EE396, EE-EP

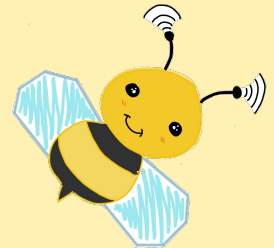


# Presentation Overview

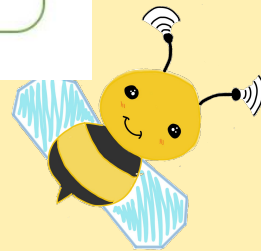
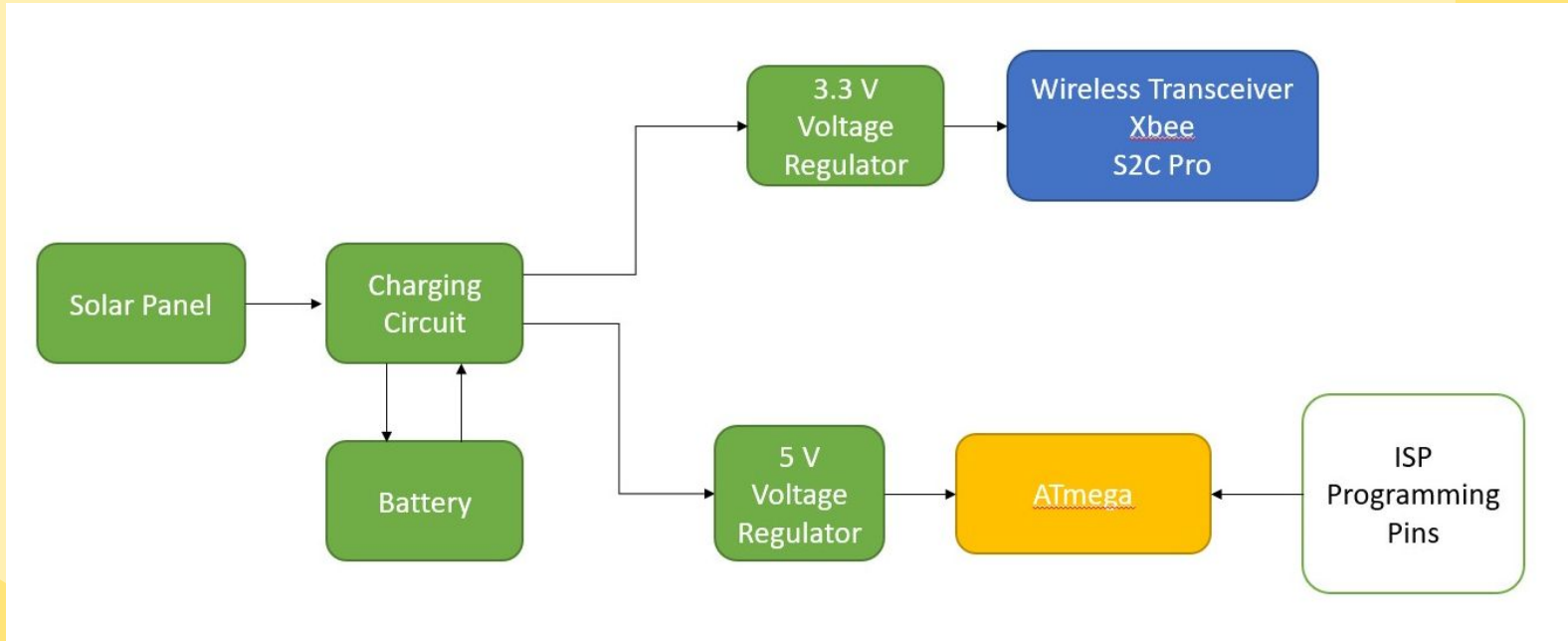
- Motivation
- Project Goals
- Learning Expectation
- Gantt Chart
- Team Progress
- Predicted Problems
- Work to be Done
- Questions

# Motivation/Approach

The Bumblebee Weatherbox is the second generation communications module designed to relay meteorological data collected by the other weatherboxes. Its purpose is to increase the effective range of the weatherboxes.

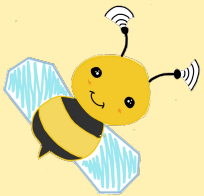
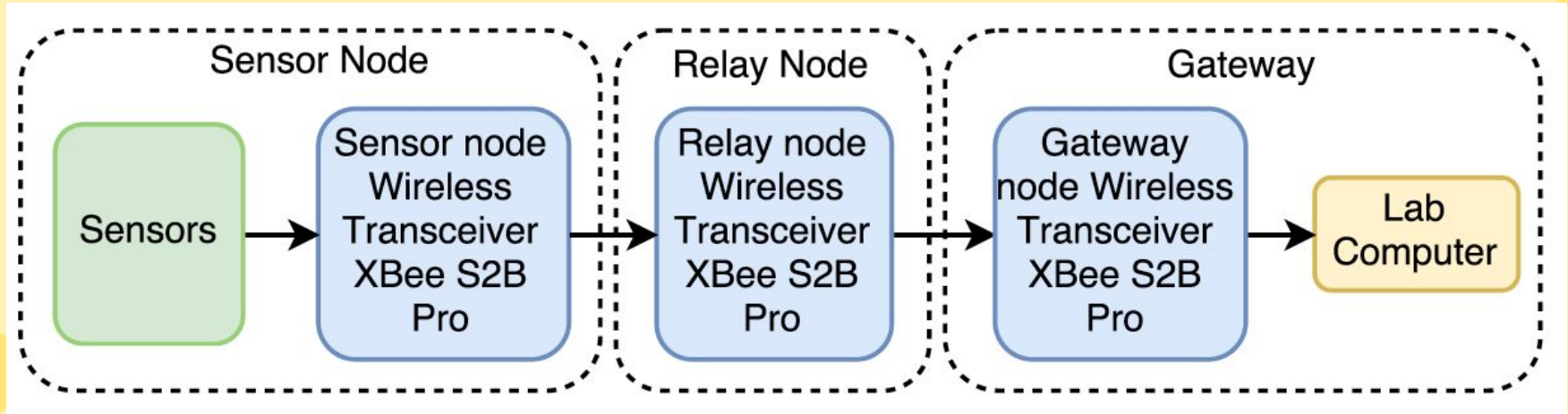


# Block Diagram- Power





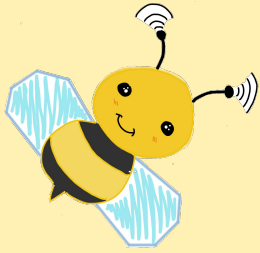
# Block Diagram- Signal/ Communication



# Learning Expectations

- Learn more about XBee
- Get a better understanding of Relay code
- Improve technical skills: Soldering, Eagle, Debugging, etc.
- Work together as a group to accomplish tasks on time





# Project Goals

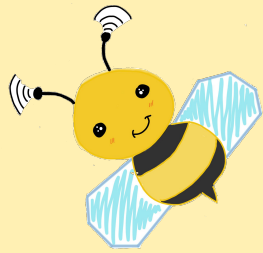
- Continue to do range testing
- Hope to teach new members coding and soldering
- Want to populate more version 4.1 and 4.0 boards
- Work on Bootloading



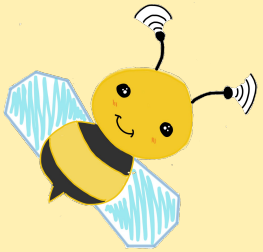




# Team Progress



- Range test Bare Bumblebee
- Teach new members how to solder
- Went through introductions into Arduino and XCTU

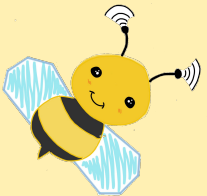


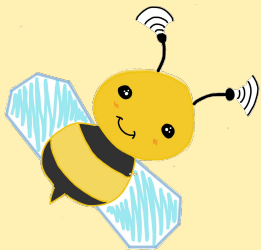
# Problems/Predicted Problems

- Bootloading v4.0 and v4.1
- COVID-19
  - Ordering and receiving parts on time
- Getting new members up to speed
  - XCTU & Arduino IDE
  - Soldering



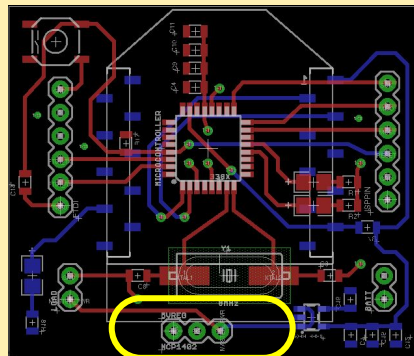
Me and the boys ready for Zoom



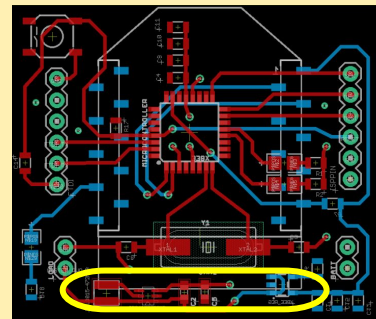


# Work to be Done

- v4.0
  - Populate more boards
  - Bootload new boards
  - Test v4.0
- v4.1
  - Populate
  - Bootload
  - Test v4.1
- Conduct more Range Testing



Ver 4.0: 5V Step Up Breakout board



Ver 4.1: 5V regulator SMD (TPS61222DCKR)



Questions?