



# Final Presentation



Team Bumblebee  
Fall 2019  
ENGR 396



# Presentation Overview

- Background and Motivation
- Team Progress
- Problems
- Materials Ordered
- Final Status
- Future Work
- Questions



# Background and Motivation

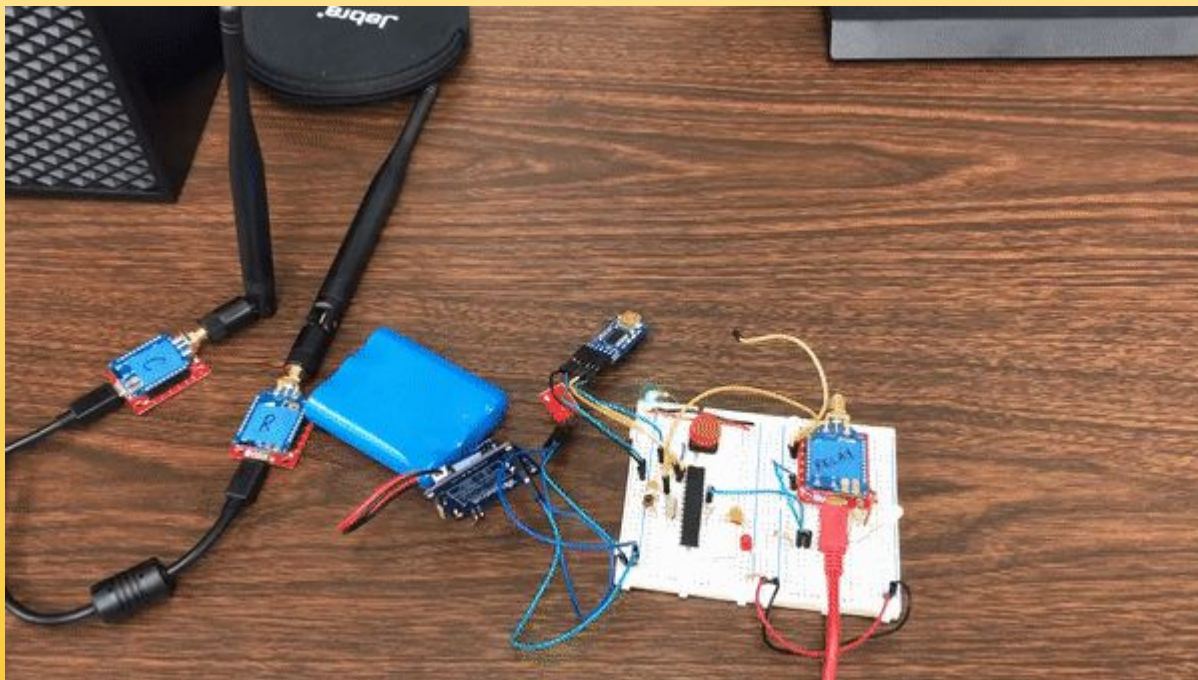
- Learn more about Team Bumblebee
- Debug board from last semester
- Range Testing in Holmes Hall



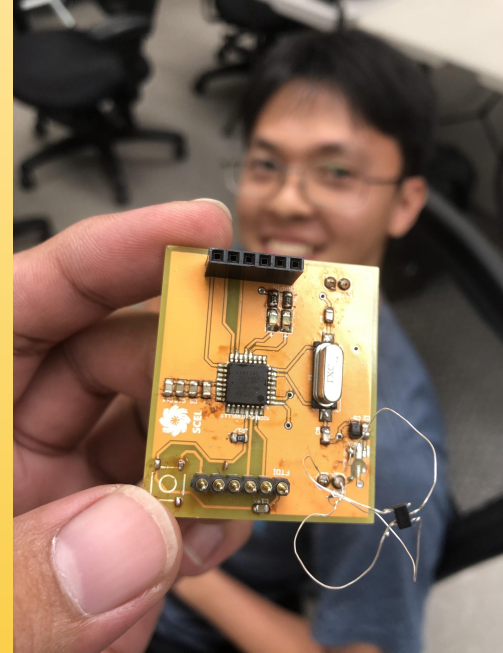
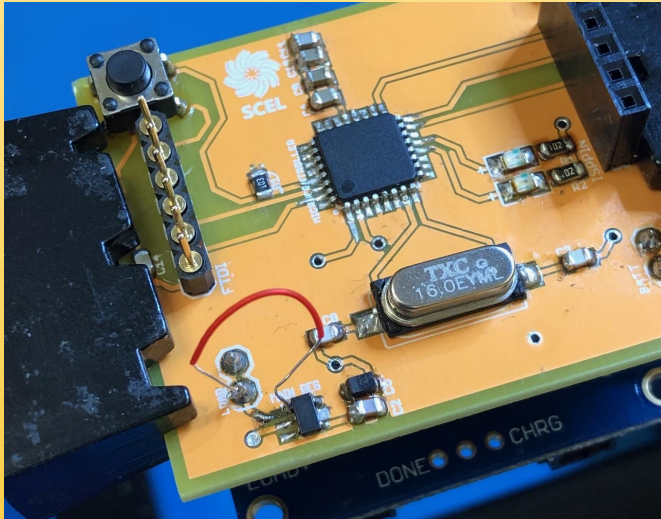
# Team Progress

- Learned the gist of how to use XCTU program to connect boards together
- Populated boards
- Finished building Bare Bumblebee
- Better understanding of how Bumblebee works

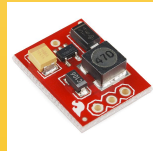
# XCTU Program



# Debugging



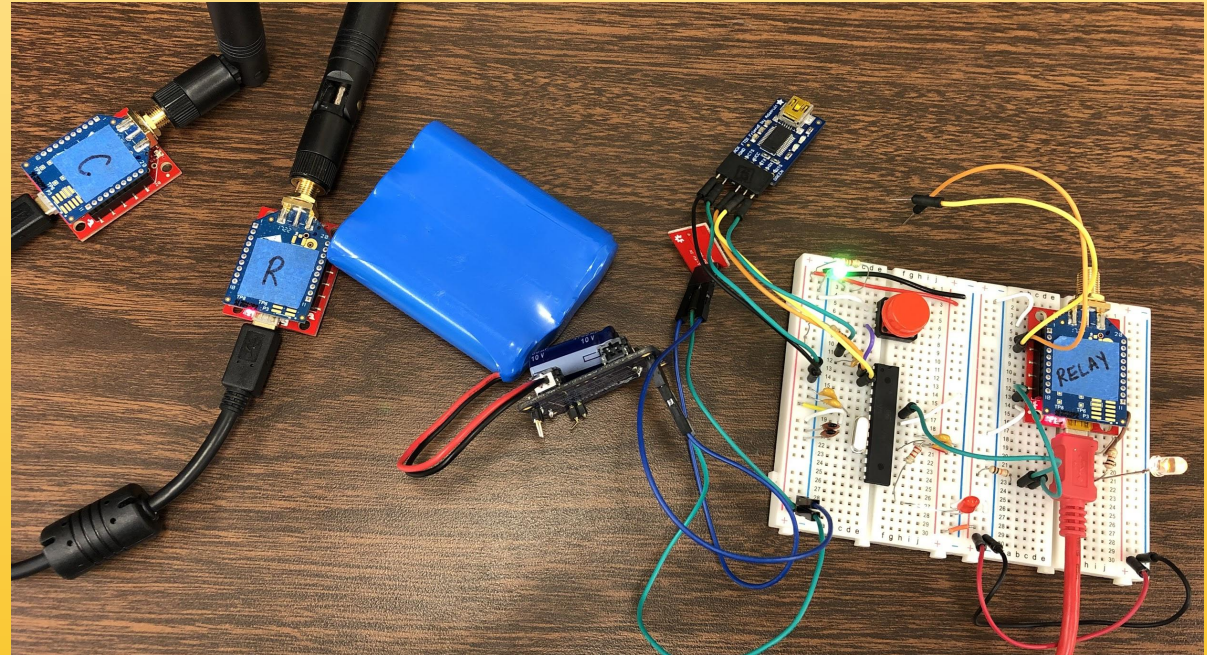
Ft. one of our members



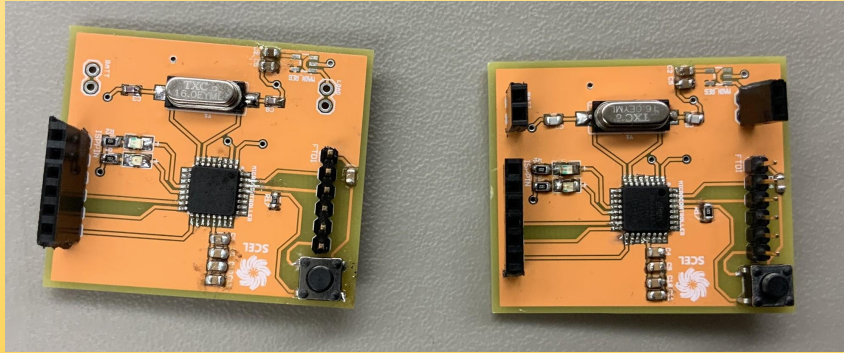


# Bare Bumblebee Board

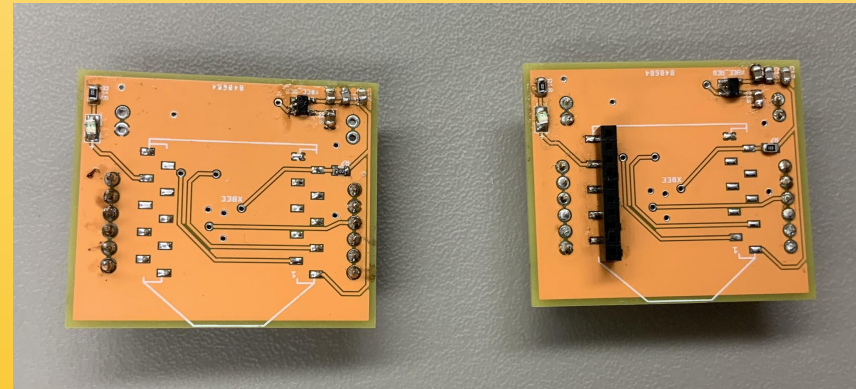
- Rebuilding bare bumblebee



# Populated Boards



- Missing: XBee SMD headers, 5V boost





# Problems

- No mentor: Self-Directed Learning
- XBee headers order form wasn't processed for Ron Hon
- Sync error
- Finals



# Parts Ordered

Part	Quantity	Cost (\$)
ATmega 328P	7	14.56
Led orange SMD	15	7.02
Led green SMD	15	4.31
XBee SMD Headers	15	14.25
	<b>Total:</b>	40.14



# Final Status

- Debugging PCB
  - Populating 2 new PCBs test 2 different boost converters
- Rebuilding bare Arduino board
- XCTU tutorials
- Ordered new components

# Future Work

- Get Bare Bumblebee to work (fix sync error)
- Order correct 5V boost part and XBee SMD headers and finish populating boards to debug
- Range testing



# Questions?