SCEL

Team Bumblebee

PROPOSAL PRESENTATION

Fall 2018

Advisor : Dr. Anthony Kuh

Team Bumblebee Introductions

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Mizpah Mansanao

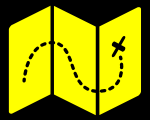
- Senior-396
- Electrical Engineering - Electro Physics

Xiao Chen

- Junior - 396
- Electrical Engineering - Electro Physics

Sharmaine Javier

- Junior - 396
- Electrical Engineering - Electro Physics



Presentation Overview

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- Motivation/Approach
- Project Goals
- Gantt Chart
- Predicted Problems
- Team Progress
- Design

Motivation/ Approach

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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.

Project Goals

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- Redesign PCB to include ISP programming pins and reset capacitor for FTDI
- Deploy 2 Bumblebees
- Fabricate new housing design

Gantt Chart

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Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	Aug-28	Sep-4	Sep-11	Sep-18	Sep-25	Oct-2	Oct-9	Oct-16	Oct-23	Oct-30	Nov-6	Nov-13	Nov-20	Nov-27	Dec-4	Dec-11
Presentations																
Proposal Presentation		Sep-8														
Preliminary Design Review					Sep-29											
Critical Design Review											Nov 10					
Final Presentation														Dec-1		
PCB Fabrication/Assembly																
Bare Board																
Fabrication Time																
Populating																
Testing																
Firmware																
Housing																
Fabrication																
Deployment																
Final Report																

Predicted Problems

- Learning Curve
- Time Management
- Debugging
- Populating board

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Learning Expectations

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- Get a good understanding of connecting Xbees in a network
- Become proficient with EAGLE and other softwares
- Work well as a group

Team Progress

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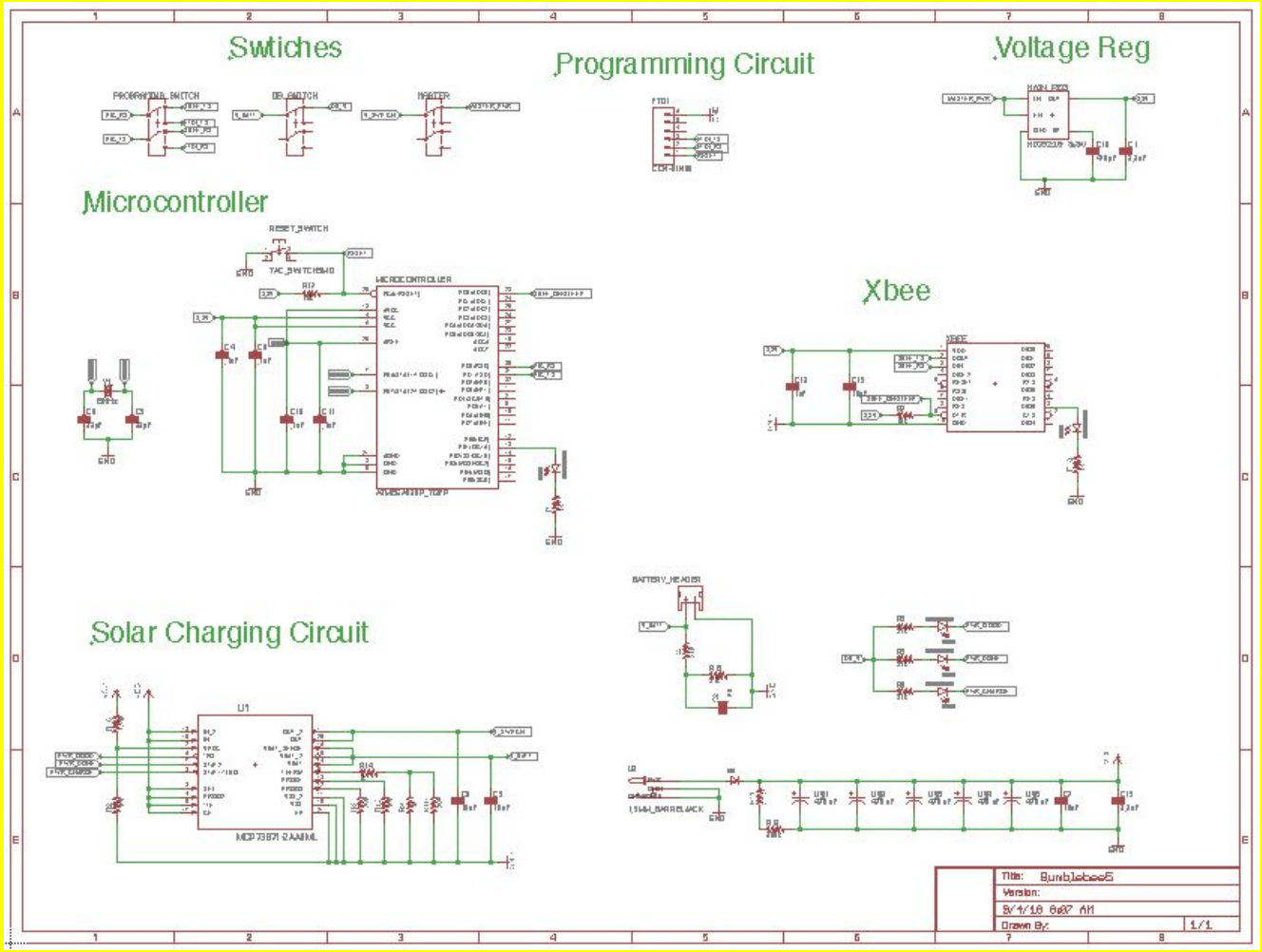
- Gathered old files from previous team.
- Started working on a bare arduino.


Swtiches
Programming Circuit
Voltage Reg
Microcontroller
Xbee
Solar Charging Circuit
Title: Bumblebee5
Version:
Drawn By:

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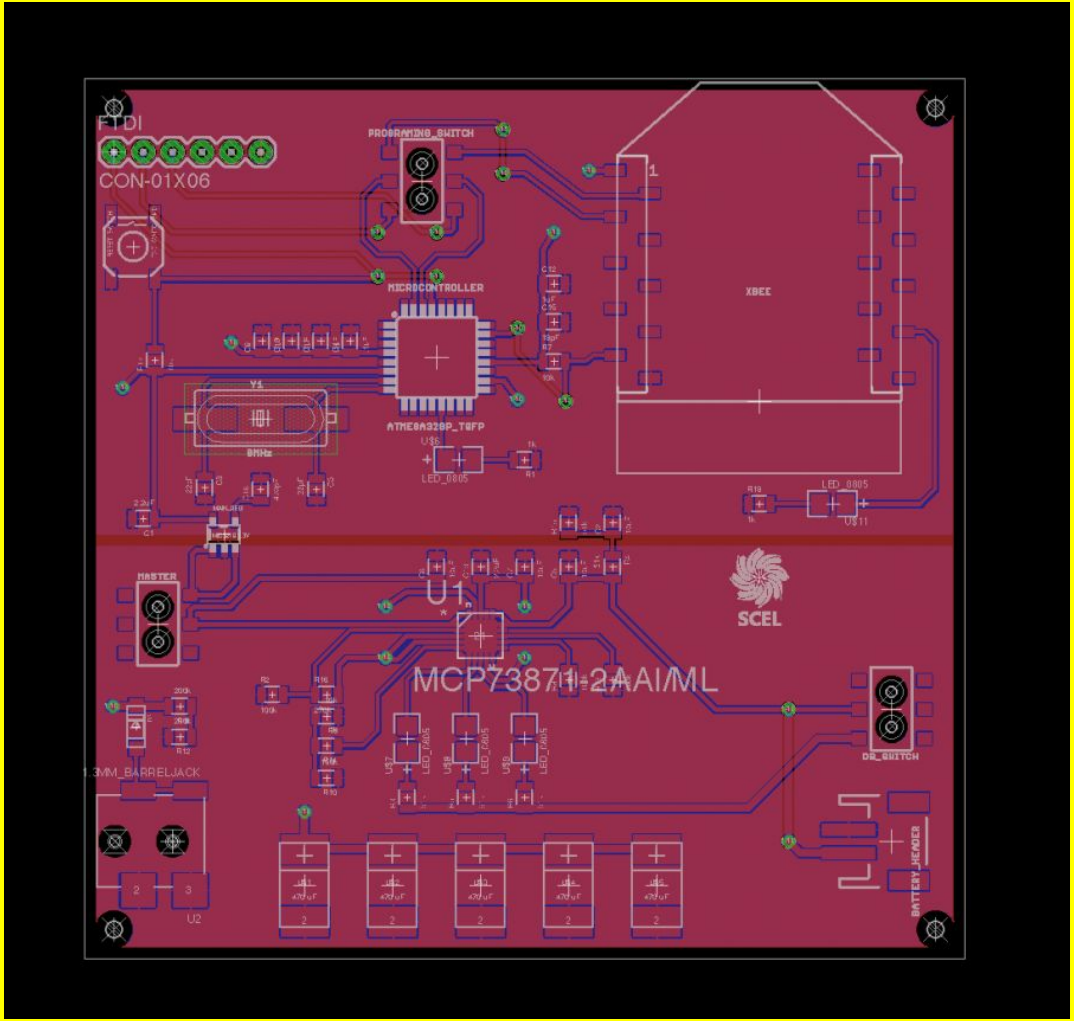
FTDI
CON-01X06
PROGRAMING_SWITCH
MICROCONTROLLER
XBEE
ATMEGA328P_TQFP
8MHz
LED_0805
MASTER
U1
SCEL
MCP73871-2AAI/ML
DC_SWITCH
BATTERY_HEADER
U2

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QUESTIONS?