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## **Critical Design Review**

Team Bumblebee Fall 2020

#### Arnold Flores EE496, EE-EP



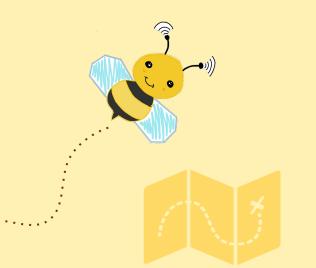
lembers

EE396, EE- EP

### **Raellis Young** EE496, EE- Systems

Lauryn Corpuz EE396, EE-EP





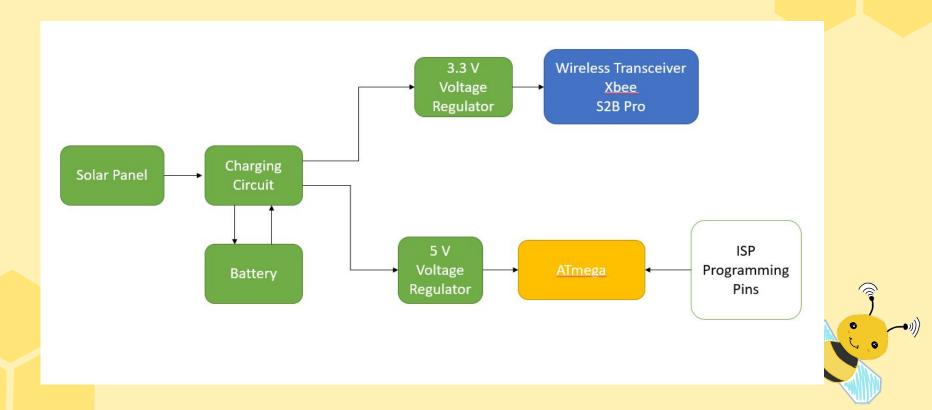
Presentation Overview



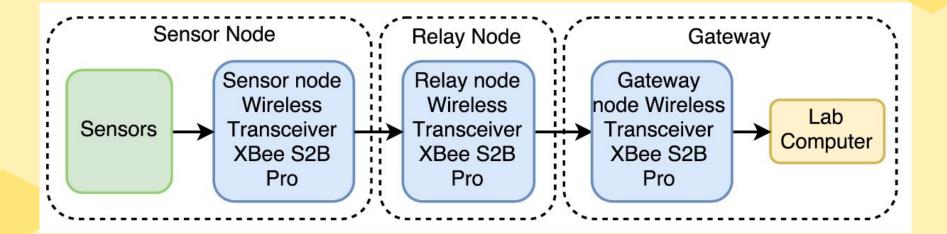
- Block Diagrams
  - Power
  - Signal/Communication
- Team Progress
- Problems
- Gantt Chart
- Upcoming Tasks
- Questions



## **Block Diagram- Power**



# Block Diagram- Signal/ Communication







- Almost done populating with v4.0
- Finished populating v4.1
- Debugging boards
  - Meeting with team Guava

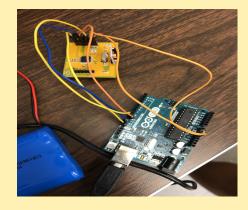




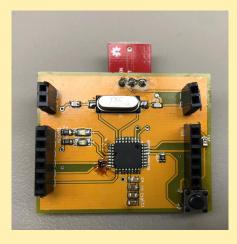


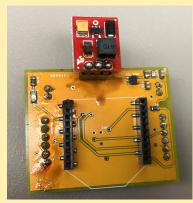




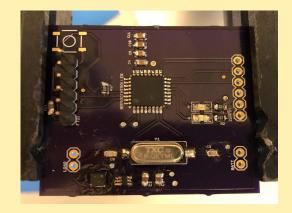


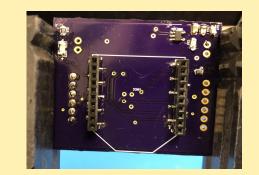






#### Version 4.1



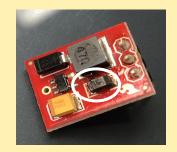






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- Soldered Female headers instead of male headers
  - Had to desolder
- Ver. 4.0 was not powering
  - Call Sharmaine for help to bootload
- Debug ver. 4.0
  - Some components weren't soldered correctly
- Ver. 4.0 kept shorting and voltage regulator started smoking
  - Broke about 4 voltage regulators
  - Couldn't upload code on to working v 4.0



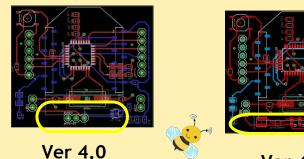
	TEAM BUMBLEBEE														
Fall 2020	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Date	8/31/20	9/7/20	9/14/20	9/21/20	9/28/20	10/5/20	10/12/20	10/19/20	10/26/20	11/2/20	11/9/20	11/16/20	11/23/20	11/30/20	12/7/20
Presentations															
Proposal															
PDR															
CDR															
Final								-							
Bare Bumblebee							-								
Build Bare Board															
Test Board															
Relay Testing															
PCB Bumblebee															
Fabricate New Board															
Order New Parts															
Populate															
Test Board															
Relay Testing															
Research															
Raspberry Pi															
WiFi Method															
Reports															
Final Report															
New Plan															
Range Testing															
Documentation															
Research															
Quarantine															



## **Upcoming Tasks**



- **Range Testing**
- **Compile Range Testing Results**
- Continue debugging v4.0
  - Bootload, upload code Ο
  - Resolder the charging chip Ο pin header
- Test/ Debug version v4.1
  - Bootload, upload code Ο





Ver 4.1

