



Team Pineapple

CDR Presentation

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Advisor: Dr. Anthony Kuh



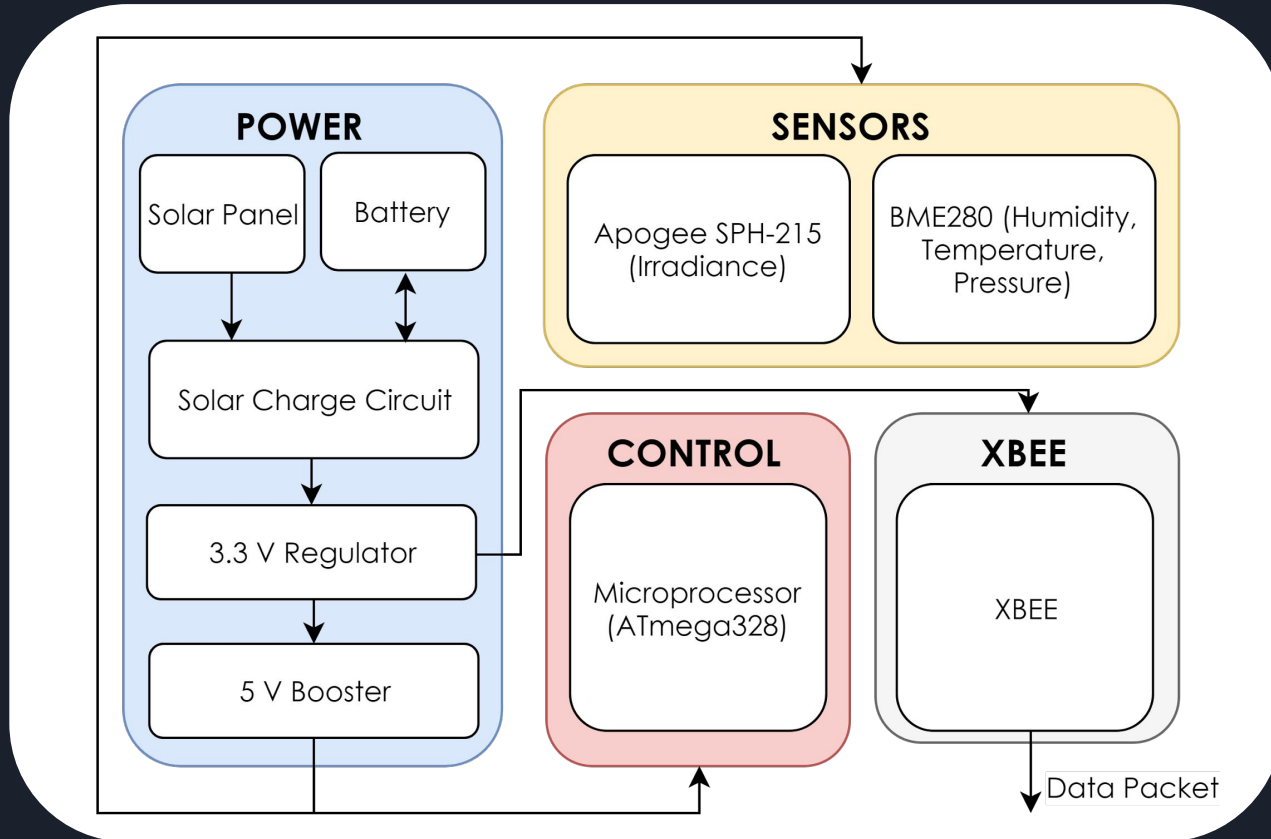
Overview

- Block Diagrams
- Schematic & PCB Design
- Pseudocode/Algorithm
- Team Progress
- Future Tasks
- Timeline/Schedule



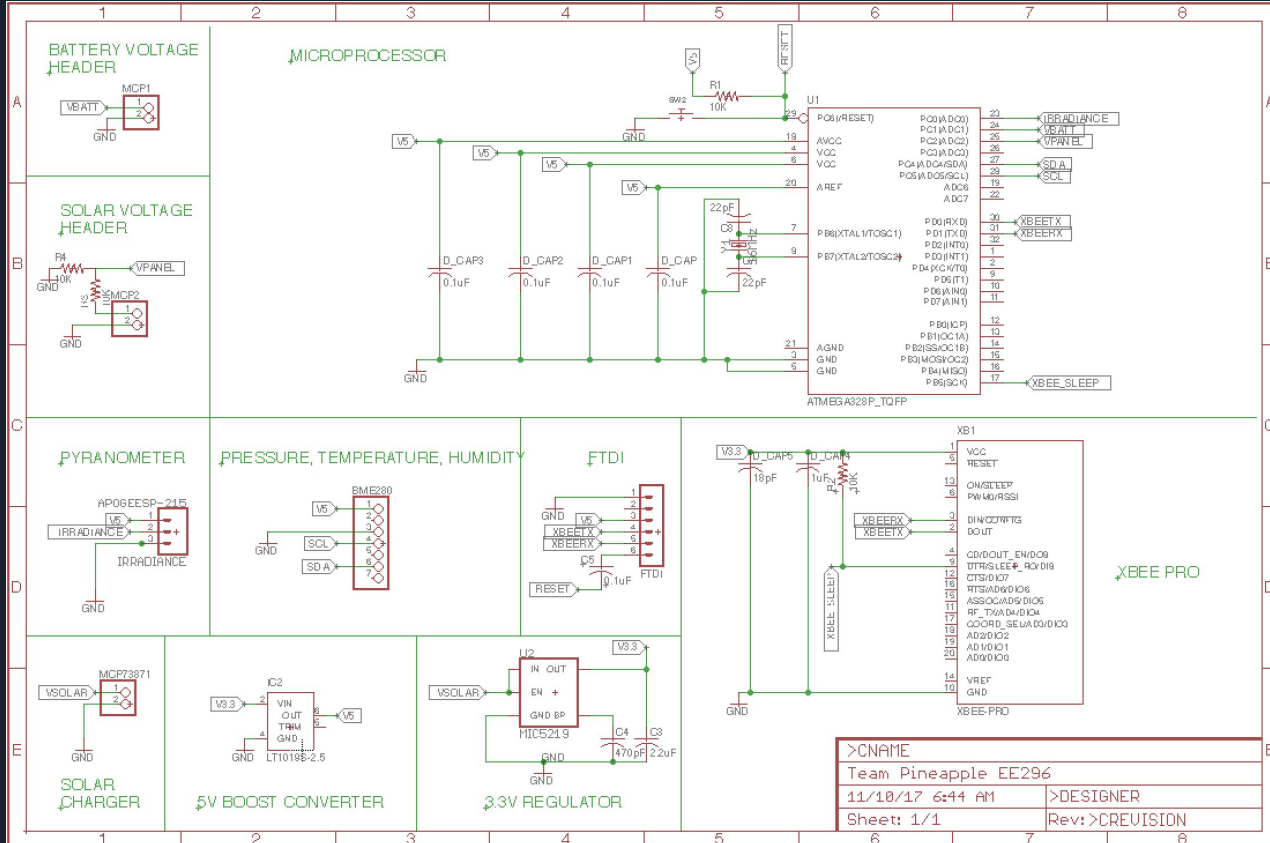


Overall Block Diagram



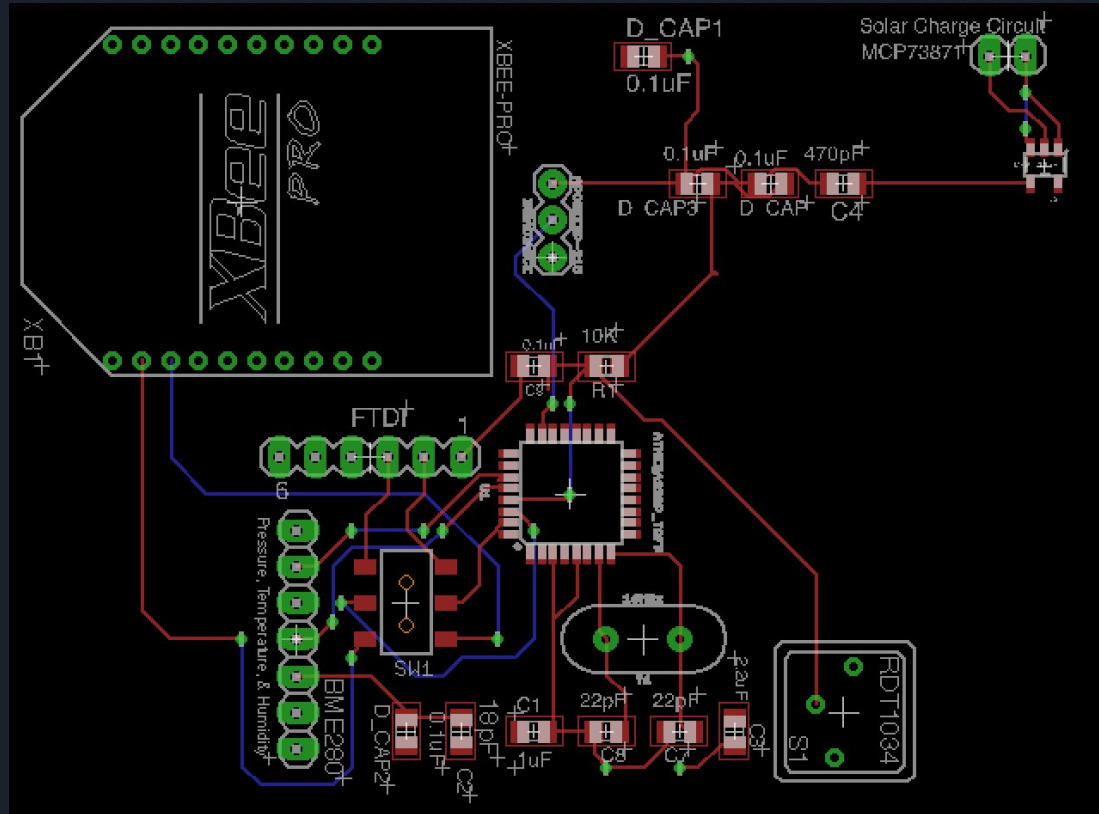


Board Schematic





PCB Layout





Pseudocode / Algorithm

```
setup():  
configure pins  
begin testing
```

```
bme280():  
bme.begin  
receiveData()  
printValues()
```

```
loop():  
bme280();  
sp215();  
xbee();  
delay(delayTime);
```

```
sp215():  
sp.begin  
receiveData()  
printValues()
```

```
xbee():  
xbee.send(tx)  
xbee.getResponse(rx)  
if SUCCESS  
    flashLed(SUCCESS)  
else  
    flashLed(ERROR)
```



Team Progress

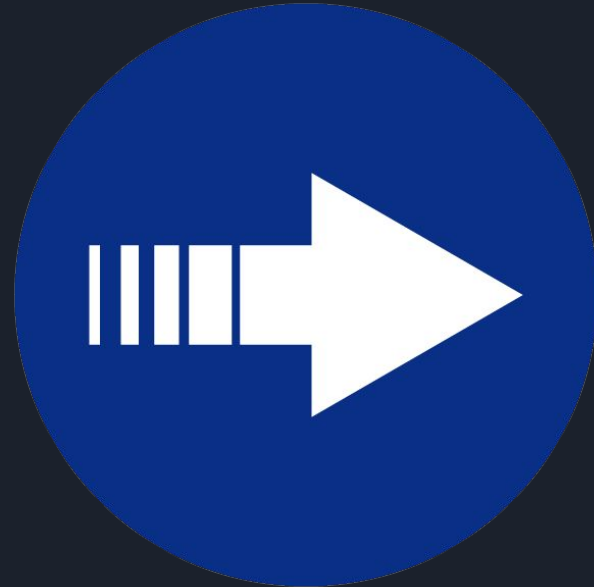
- Parts Ordered
- Board Schematic Completed
- PCB Layout (in progress)
- Code Integration (in progress)





Future Tasks

- Code Integration
- Housing
- Testing / Debugging
- Deployment





Project Schedule

Team Pineapple													
Gantt Chart													
Week	3	4	5	6	7	8	9	10	11	12	13	14	14
Date	9/18/2017	9/25/2017	10/2/2017	10/9/2017	10/16/2017	10/23/2017	10/30/2017	11/6/2017	11/13/2017	11/20/2017	11/27/2017	12/4/2017	12/11/2017
Presentations													
Proposal	09/23/17												
Preliminary Design				10/14/17									
Critical Review								11/10/17					
Final											12/02/17		
Training													
Arduino													
Modules													
Microprocessor													
Transciever													
Antenna													
Charging Circuit													
Battery													
Temperature Sensor													
Solar Irradiance Sensor													
Humidity Sensor													
Pressure Sensor													
Solar Panel													
Build													
System Integration													
Overall System Firmware (PCB)													
Housing													
Test													
Debug													
Reports													
Final Report													



Questions?

