**Project proposal**: 7th September

**Basic requirements:**

1. CPU

2. Radio

3. Charging circuit

4. Must be bare metal coding

**Expected Outcomes:**

1. Decide trade-off’s
2. Powering a battery
3. Design charging circuit
4. Maximize output energy using capacitors
5. Select radio protocol
6. Inverted F2.4GHz PCB trace antenna
7. Minimize EMI noise
8. Meet reliability goals using good components
9. Develop test plans
10. App to communicate with device
11. “*Unwritten Laws of Engineering*” – Book

**Class Structure:**

1. Energy harvest/USB charging port
2. Quizzes Posted: Monday – Due: Sunday
3. In class quizzes
4. Homework will be skill based, Altium, Super-capacitors etc.
5. 2nd week onwards weekly updates
6. Must work **EVERY WEEK** **!**
7. Decide how to split work on your own
8. Place note for PCB design instructions on official sites

**08/28/2019**

1. Design PCB Antenna
2. The proposal should outline; 1. How it is useful ? Which board ? etc
3. TI RF Designers guide read.
4. Maximum 5 pieces of Silicon ? [CPU, Charger, Amp if needed etc]
5. Confirm all the firmware before fabrication.

**Project Ideas**

1. Infrared camera