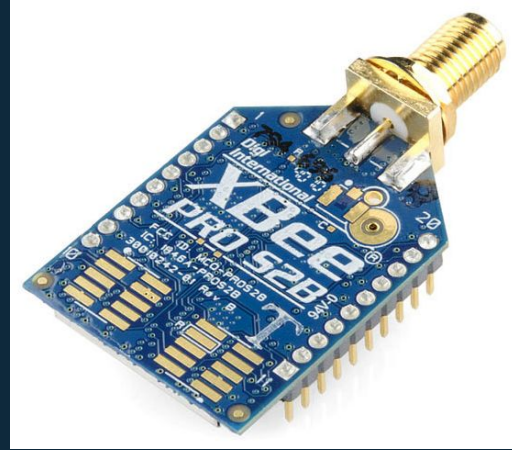# Critical Design Review Presentation

Advisor: Dr. Anthony Kuh
Mentor: Tryston Fagarang
Savath Saepoo
EE 496
11/12/16
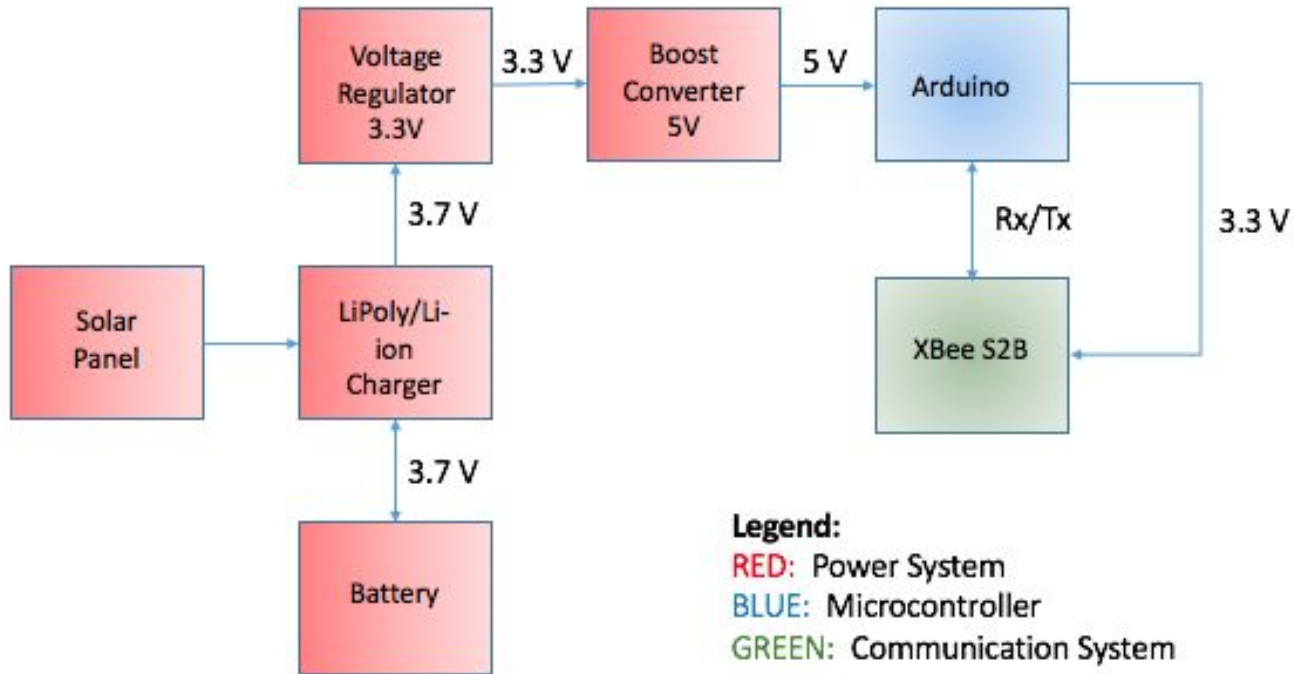
Overview

- Block Diagram
- Progress
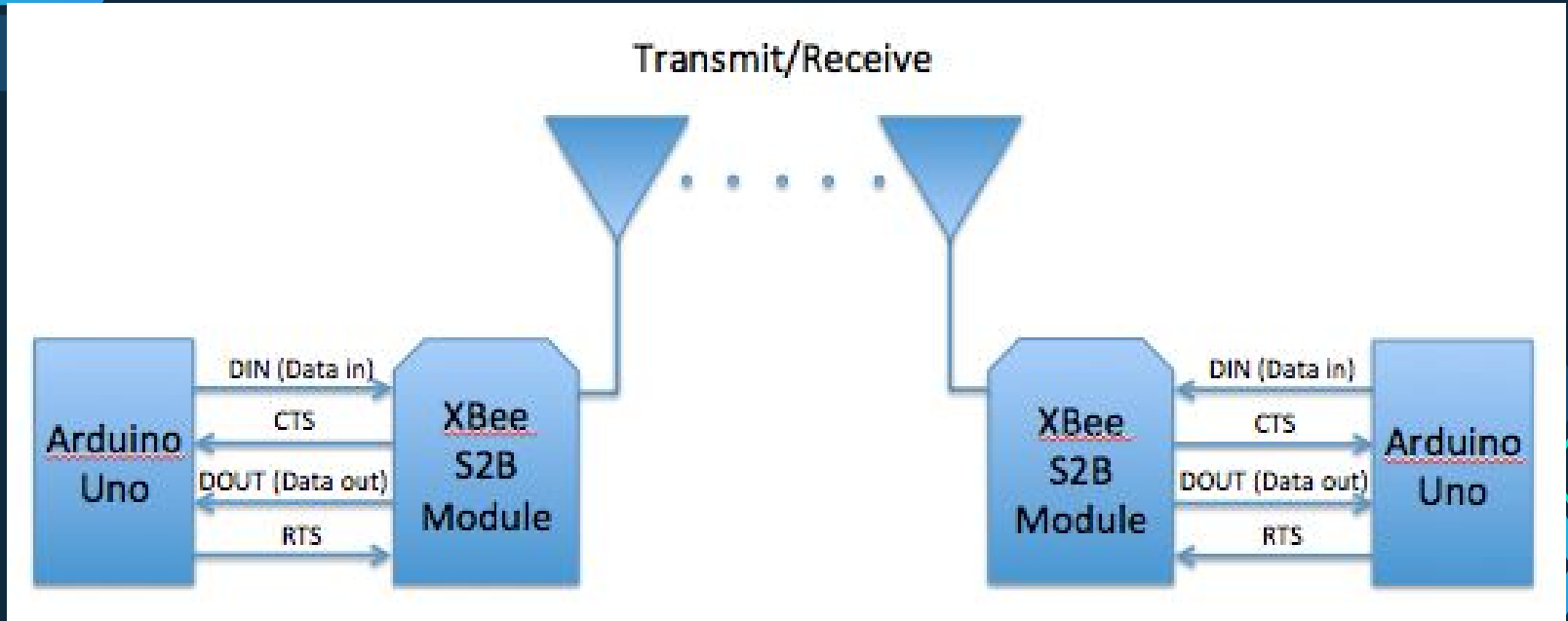- Remaining Tasks
- Questions

Overall Block Diagram

System Data Flow Diagram

Transmit/Receive

Arduino Uno — DIN (Data in) → XBee S2B Module
CTS
DOUT (Data out)
RTS

XBee S2B Module — DIN (Data in) ← Arduino Uno
CTS
DOUT (Data out)
RTS

Progress

- Tested design on breadboard
- Reduced voltage regulator usage of 2 to 1
- Communication between coordinator XBee (XCTU) and router XBee (Breadboard)
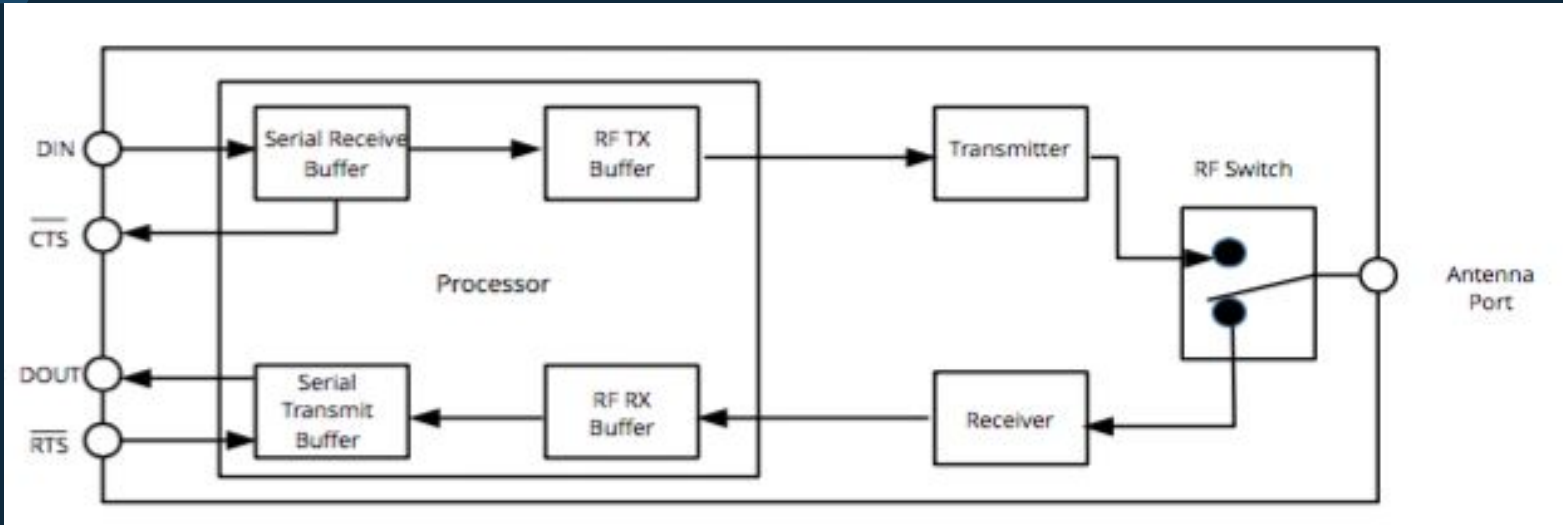- Created schematic of breadboard design on EAGLE

Issue

- **Serial buffer of the XBee module**

Remaining Tasks

- Two way communication using one XBee (Router XBee)
- Finish PCB board design on EAGLE
    - Test board
- Housing

Gantt Chart

Week	1	2	3	4	5	6	7	8	9	10	11	12	13
Date	9/10/16	9/17/16	9/24/16	10/1/16	10/8/16	10/15/16	10/22/16	10/29/16	11/5/16	11/12/16	11/19/16	11/26/16	12/3/16
Presentations													
Proposal													
Preliminary Design Review													
Critical Design Review													
Final Presentation													
Ant													
Reading Documentations													
Configuring XBees on XCTU													
Design Layout													
Testing Breadboard Design													
Debugging Breadboard Design													
Programming Arduino													
Board Fabrication													
Testing PCB Design													

Any Questions?

References

Websites:
- http://www.digi.com/products/xbee-rf-solutions/xctu-software/xctu

Images:
- https://cdn.sparkfun.com//assets/parts/4/8/9/3/10419-01.jpg