

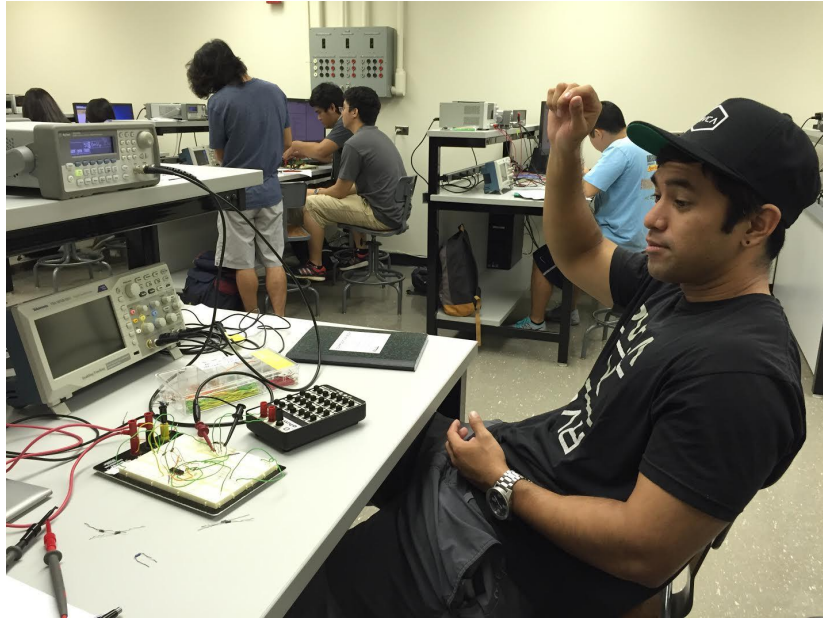
XBee



Physical and Virtual Network Testing and Simulation

Raydan Bala
Ernesto Lorenzo

Introduction



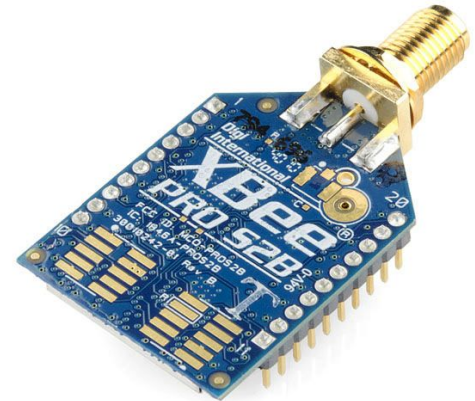
Raydan Bala
Team Lead



Ernesto Lorenzo

Project Overview

- XBee: Wireless Transceiver
- Objective: Build a test board to check functionality of XBees
 - Reduce debug time of other projects
 - Sends and Receives data
 - Test communication between two XBees



Motivation and Goals

Motivation:

- Real-world applications of EE concepts
- Gain experience working with others towards a common goal
- Learning new hardware and software skills

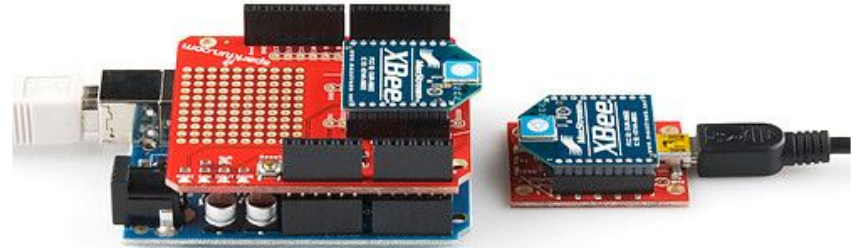
Goals:

- Complete design project in a timely manner
- Design fully functional test boards



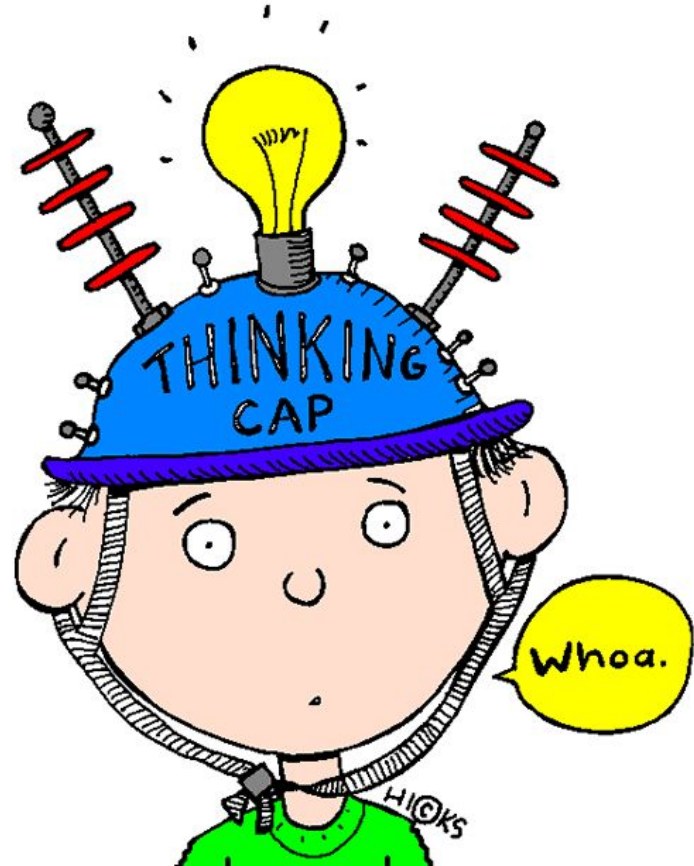
Team Approach

- Phase 1: Understanding Arduino and XBee
Arduino tutorials
Configuration of XBee Pro S2B
- Phase 2: Prototype PCB
Communication between two XBees
Prototype test setup
- Phase 3: Final PCB board
Finalize setup



Learning Expectations

- Hardware:
 - Soldering
 - Design Software
- Software:
 - Arduino
 - X-CTU



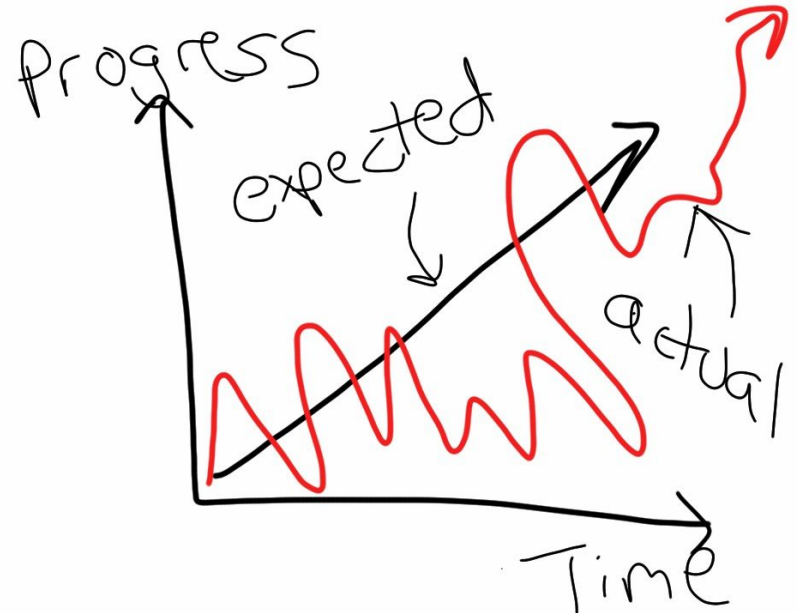
Obstacles and Difficulties

- Unfamiliarity with parts
 - XBee
 - Arduino
- Design software
- Time management

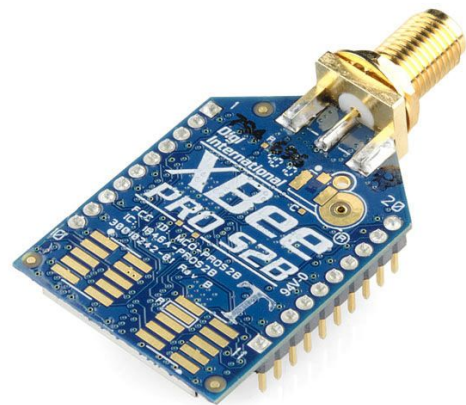


Current Progress

- Currently
 - Research
 - Arduino tutorials
 - XBee configurations
- Next task:
 - Test XBee communication
 - Learning Eagle



End.



Works Cited

Website Citations:

<https://learn.sparkfun.com/tutorials/exploring-xbees-and-xctu>

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