

Remote Weather Sensors Over ZigBee

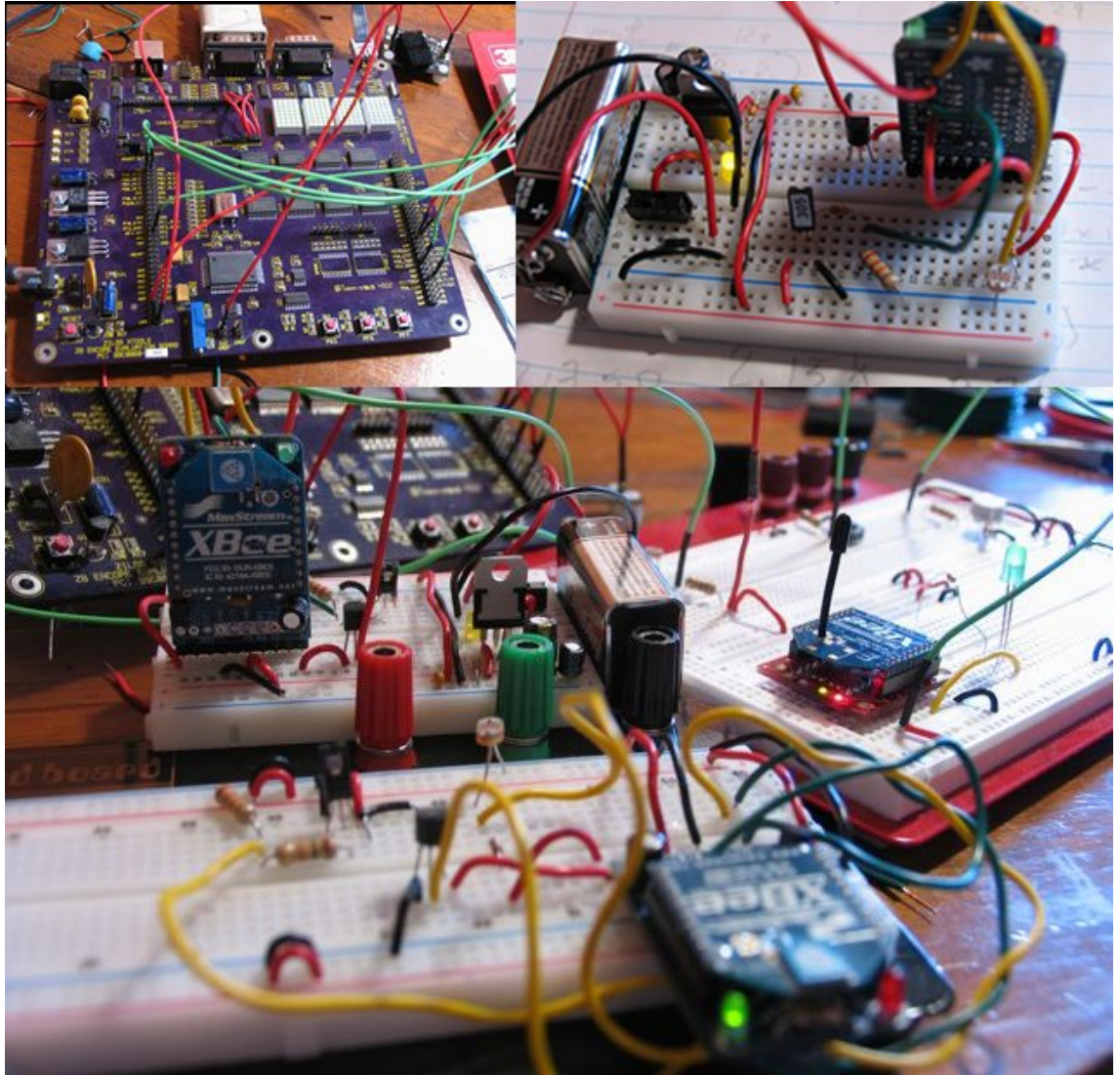
Ian Will

April 26, 2011

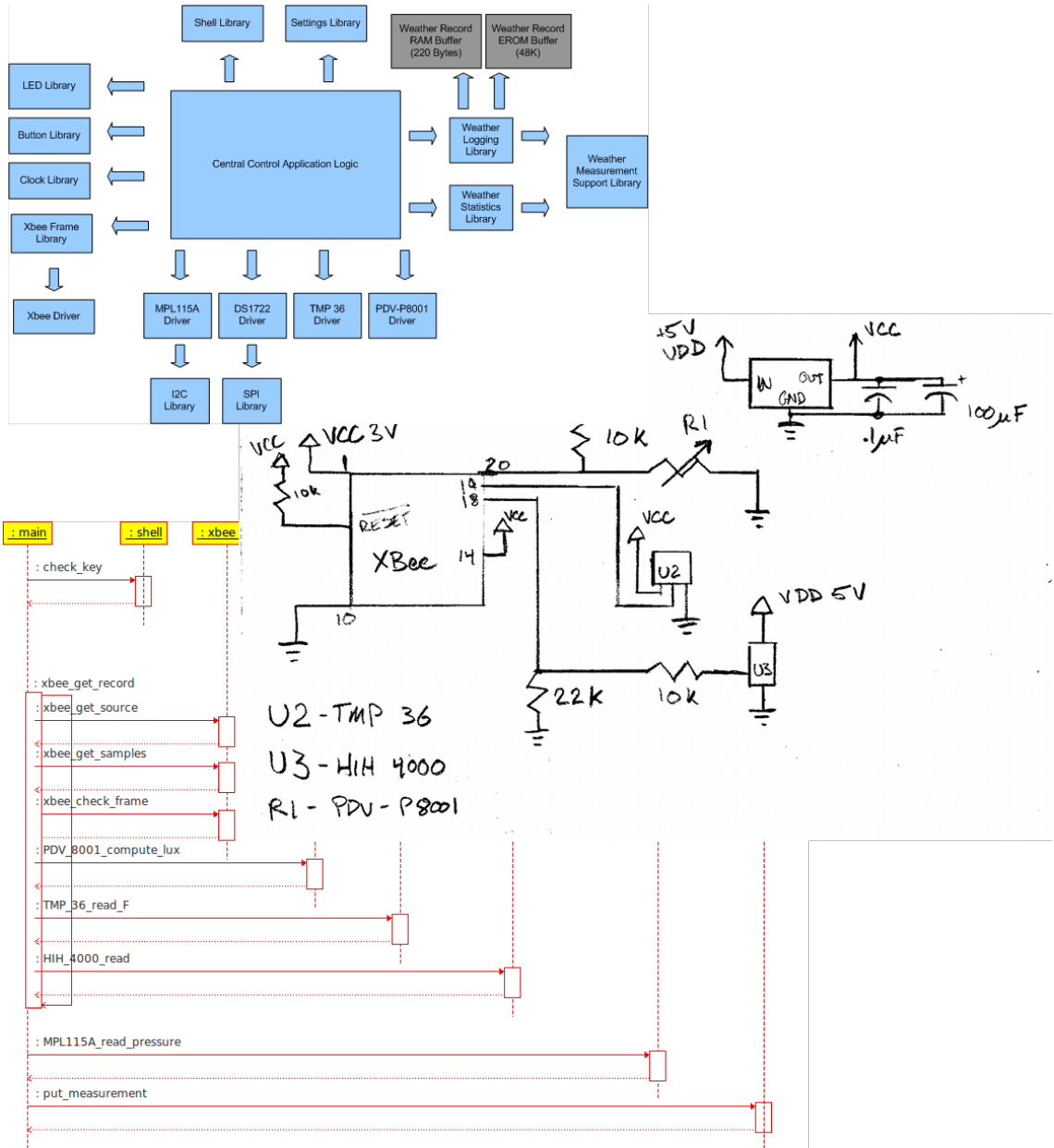
Project Abstract

The system is a network of weather collection stations that communicate over RF using 802.15.4 / ZigBee networking. Remote sensors measure light, temperature, humidity, and pressure periodically and transmit them to a central data logger. Current conditions at each station are displayed by scrolling text on the central unit's LED panels. Details analysis of weather logs can be accessed through a shell provided over serial communication. Implementation used a Zilog microcontroller and XBee radios.

Final Project



Work in Progress



Lessons Learned

- I²C
- XBee Frame API and AT-based configuration
- Voltage dividers
- Analog-Digital Conversion
- Zilog Z16 Flash Memory