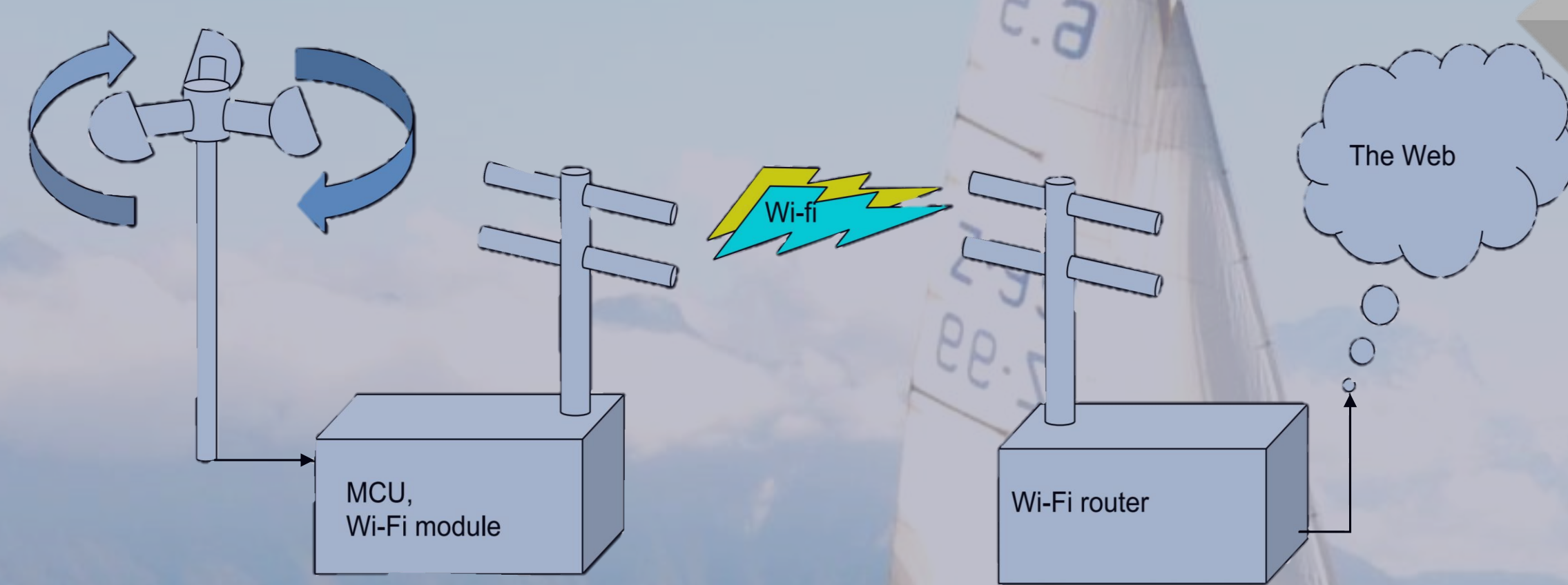# WWU WIND FEED

by Ted Fernau

A custom IoT weather station. Designed to publish wind speed information for the WWU boathouse on Lake Whatcom.
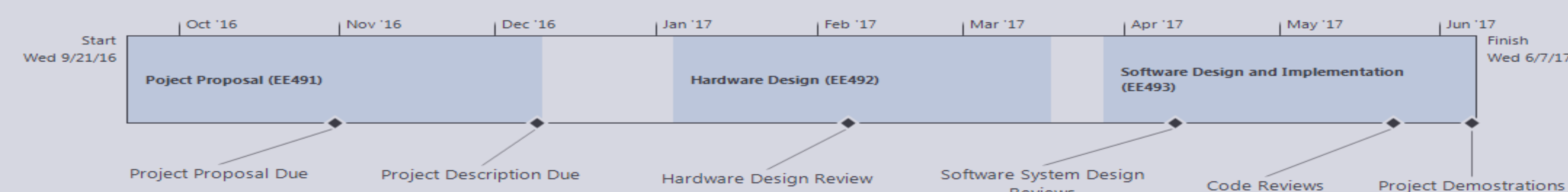
Hardware

Hardware Resources:
- **MCU:** CC3200 embedded WiFi microcontroller
- **Schematic Design/Layout/Routing:** Altium Designer
- **Build/Debug:** reflow oven, microscope, soldering station, DMM

Summary

Concept:

Requirements:
- Publish wind speed to web **every 30 minutes**
- Provide wind speed accurate to **0.1 Kts.**

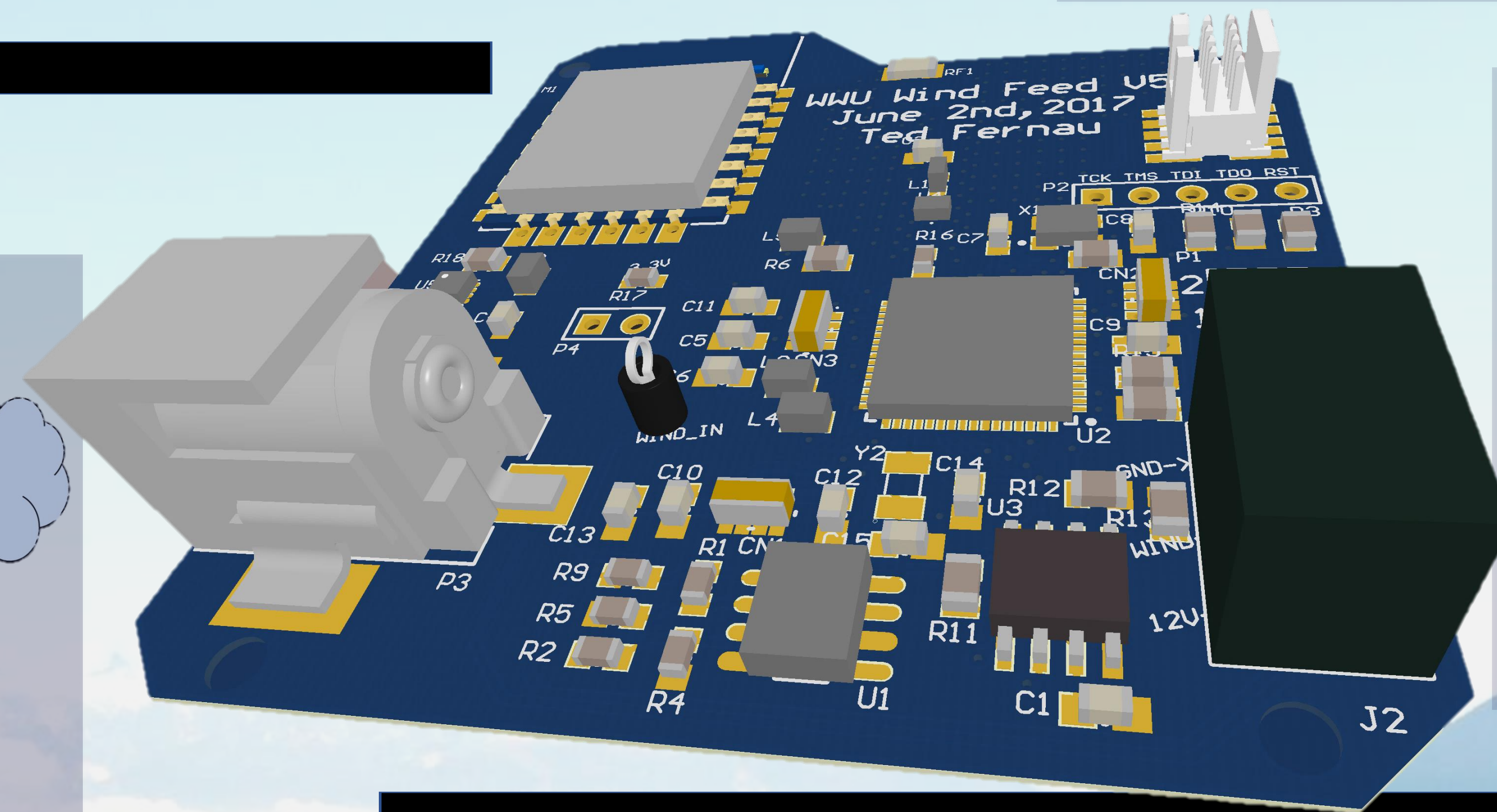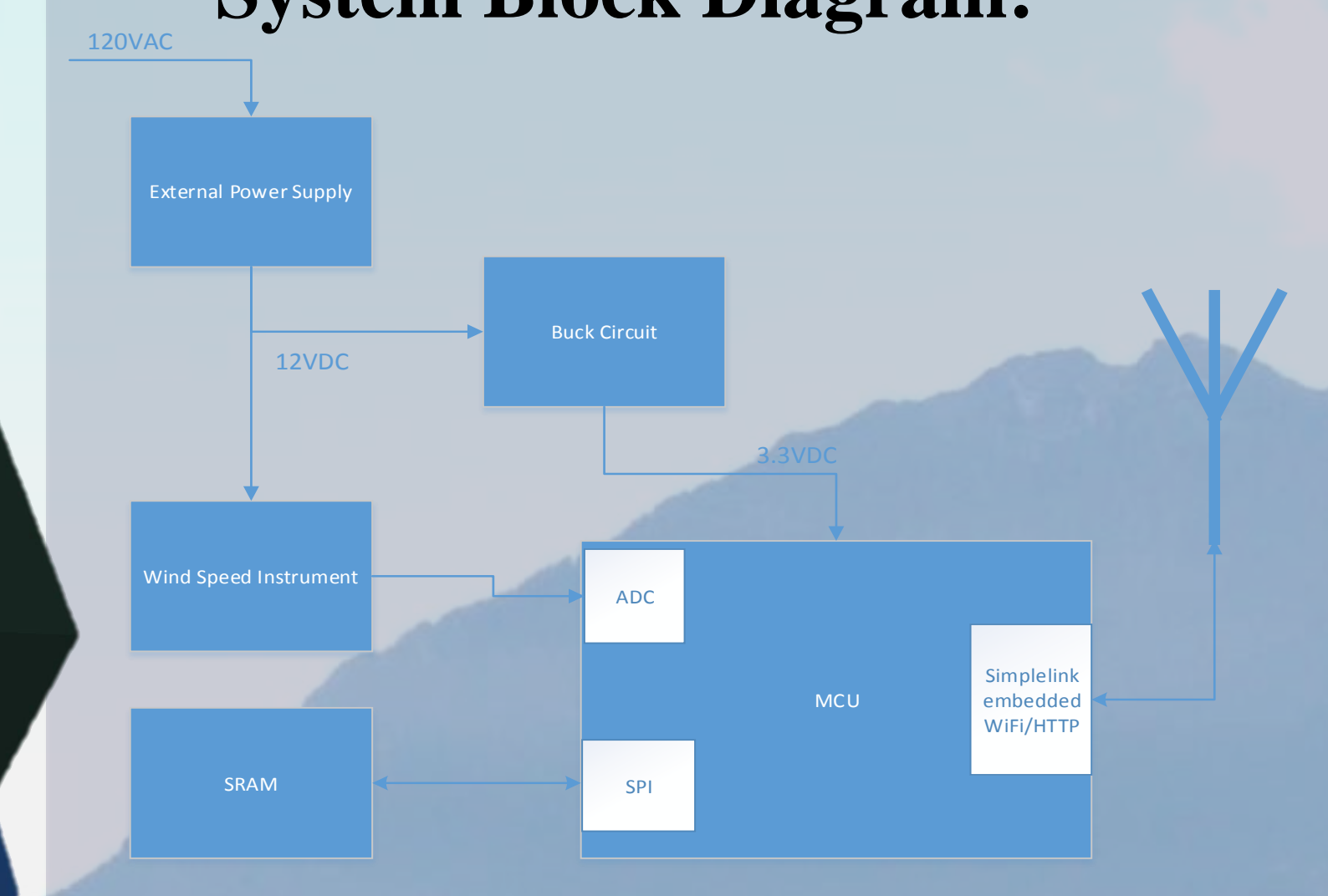### System Block Diagram:

Software

Software Resources:
- **Coding:** TI Code Composer Studio, embedded C
- **Debugging/Programming:** TI Stellaris in-circuit debug interface, JTAG
- **Revision Control:** eGit
- **Testing:** DMMs, oscilloscope, air compressor, serial terminal, web browser

Dataflow Diagram:

Project Planning: