Software/Electrical Team Timeline

Dependent Value Calculations

1. Ask environmental groups for important measurements, aka dependent calcs that can be found from existing sensor measurements.
2. Find fomrulas for these, and hardcode these variables into ESP32 for data tranmission
3. Research dependent value thresholds

Post-Sensor Aquisition

1. Breadboard sensors to Firebeetle ESP32 individually
2. Test individual sensors using localized code for each.
3. If every sensor works, and is calibrated, advance to next step:
4. Connect ESP32 to all sensors and check current load and power requirements
5. Calculate power consumption per time cycle
6. Using the previous value, estimate the solar panel size in^2

Post-Solar Panel & Battery Aquisition

1. Wire up solar panels and battery for solar charging
2. Test solar power generation in various conditions
3. Estimate total power generation per day by averging generation per weather condition and multiplying by a safety factor
4. Program a power cycle schedule for the ESP32. *Optional: Allow changes to this cycle from website*

Cellular Chip Setup

1. Wire the Adafruit FONA to the Firebeetle ESP32
2. Water-proof antenna
3. Code the ESP32 to write out sensor values + dependent calcs to an XLSX file accessible online
4. Establish a failure protocol, when disconnected from cellular, the esp32 attemps to reconnect

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Website Design

1. Purchase a domain and embed XLSX file inside for analytics.
2. Continue from "*AI Integration/Training*" step in the Build Timeline