The biology department has one method for monitoring soil conditions in the Pintler Mountains, which is placing isolated sensor units underground and taking note of where they are buried for later retrieval. This technique is imperfect because the current sensors can’t provide humidity readings, data can only be collected by retrieving the sensors, and finding sensors can prove difficult. This method is especially time consuming because of the remote location. Each problem was evaluated individually, and a system was designed that would incorporate a solution for each. First, sensors capable of reading both temperature and humidity are used to capture all relevant data. Next, a host that can operate the sensors and is capable of long-term data storage coupled with a satellite modem that can transmit data without cellular coverage provide the core functionality we need. Finally, a separate controller that can manage power consumption is required for extended battery life.

New Version:

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