# Plant.tv

Live updates from Pete the Plant! See when he is hot and needs watering or when he is cold and needs to be brought inside!

Using the gravity LM35 temperature sensor, we measure the temperature of the plant. It then processes the information through the HUZZAH Feather microcontroller and sends the information to a cloud. From here we display the temperature on a webpage and his corresponding feelings. This allows the plant's owner to constantly monitor when it needs to be watered!
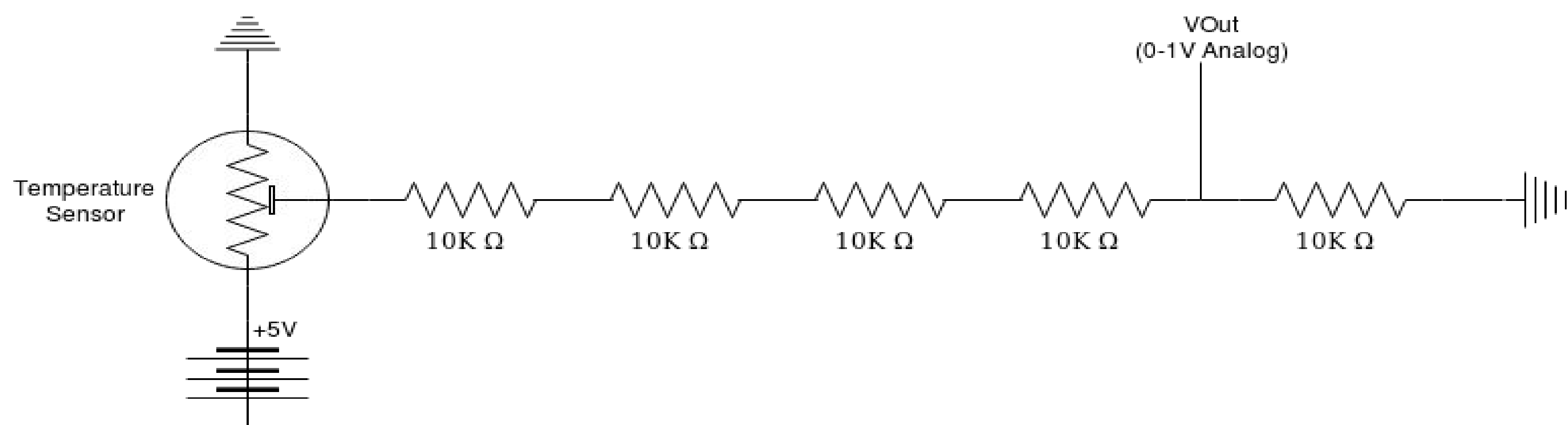
Block Diagram
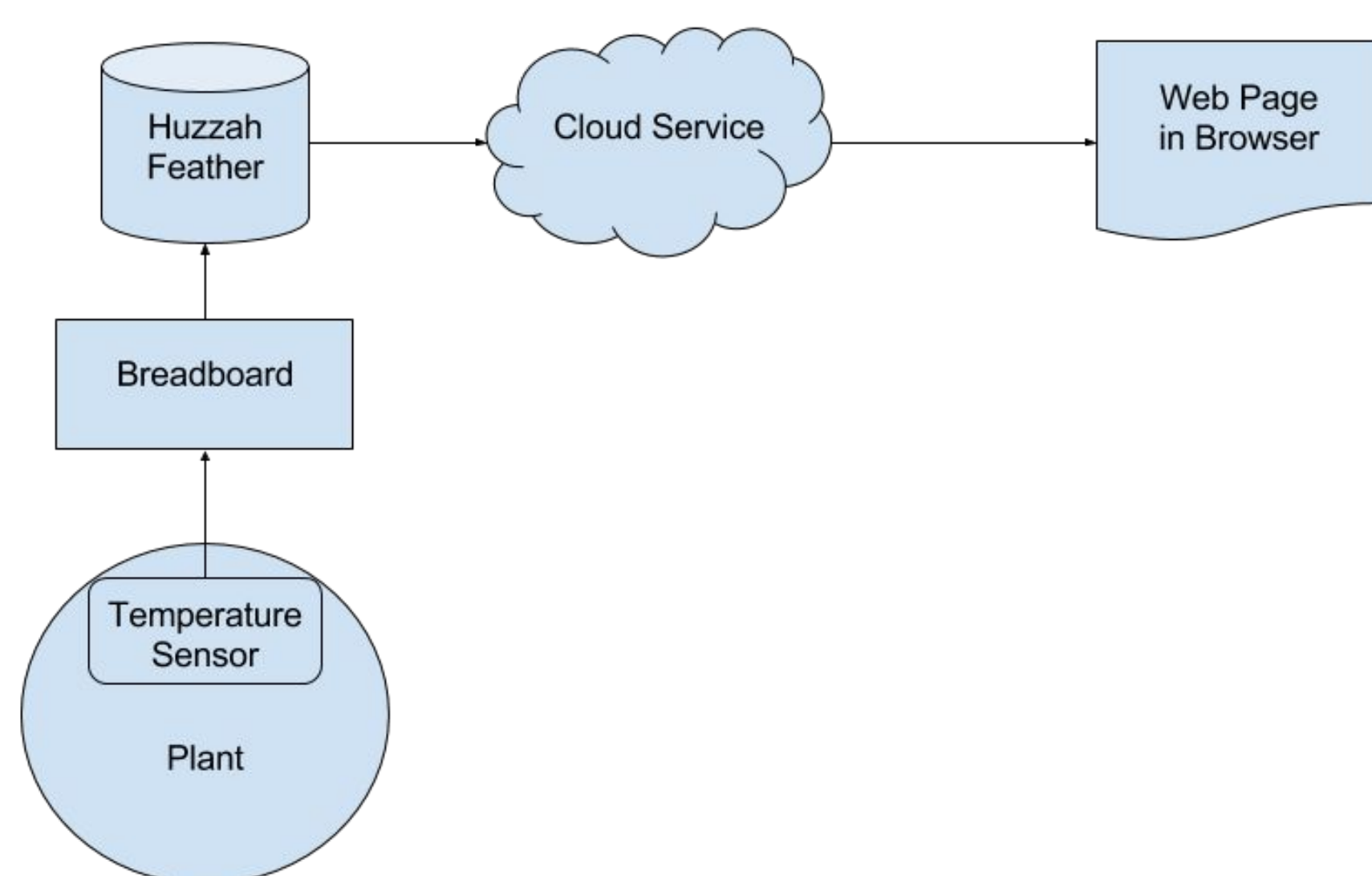
Final Project
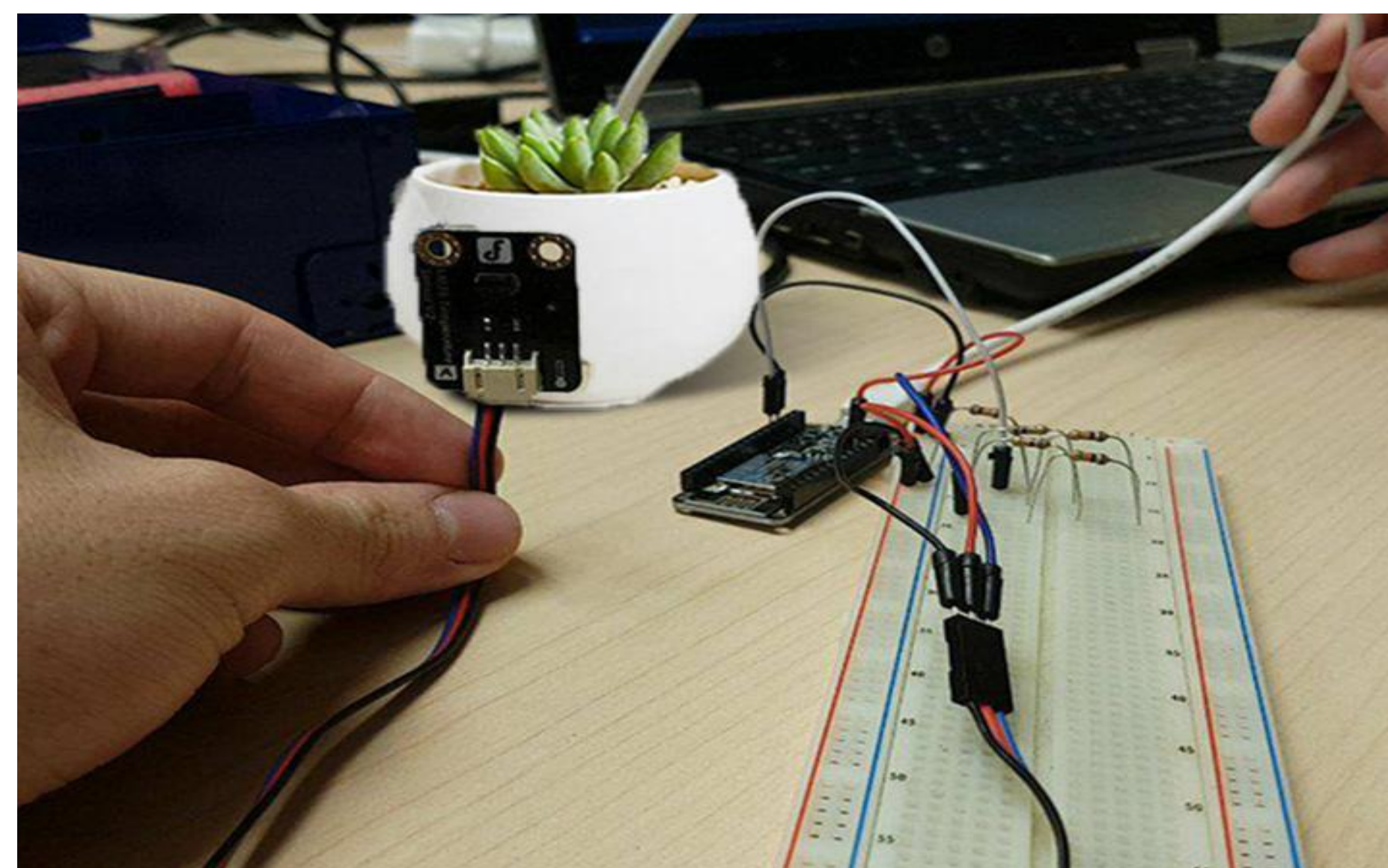
How it Works

The HUZZAH Feather microcontroller reads the output voltage from the LM35 Temperature Sensor and the software will then convert it to degrees centigrade. Depending on the temperature being read, the HUZZAH will talk with the Cloud Service and print out a statement to the web-based page.

Analog Conversion

The circuit diagram above shows how the 5V analog signal from the temperature sensor is converted to a 1V analog signal with the use of resistors.

Software

We will using the Arduino IDE to program the HUZZAH Feather. The software will be written in a mix of C and C++ coding. The temperature value reported by the sensor will then be communicated to our cloud service using HTTP requests.

The cloud service we will be using is Django to interface with our database, accept updates from the IOT device, and serve the HTML webpages.

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