

# **BEAN SPROUTS CULTIVATING ASSISTANT**

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# Main Features

- Collecting data from the sensor
- Automatically watering bean sprouts
- Sending data to the cloud



# Process

1

Collect data

2

Choose platforms  
and components

3

Assemble  
hardware and  
write code

4

Connect to the  
cloud

5

Working on  
prototype and  
testing

6

Documentation



## Hardware

Arduino UNO  
Soil moisture sensor  
Relay module  
12V water pump  
External 12V power source

## Programming Language

Python  
C

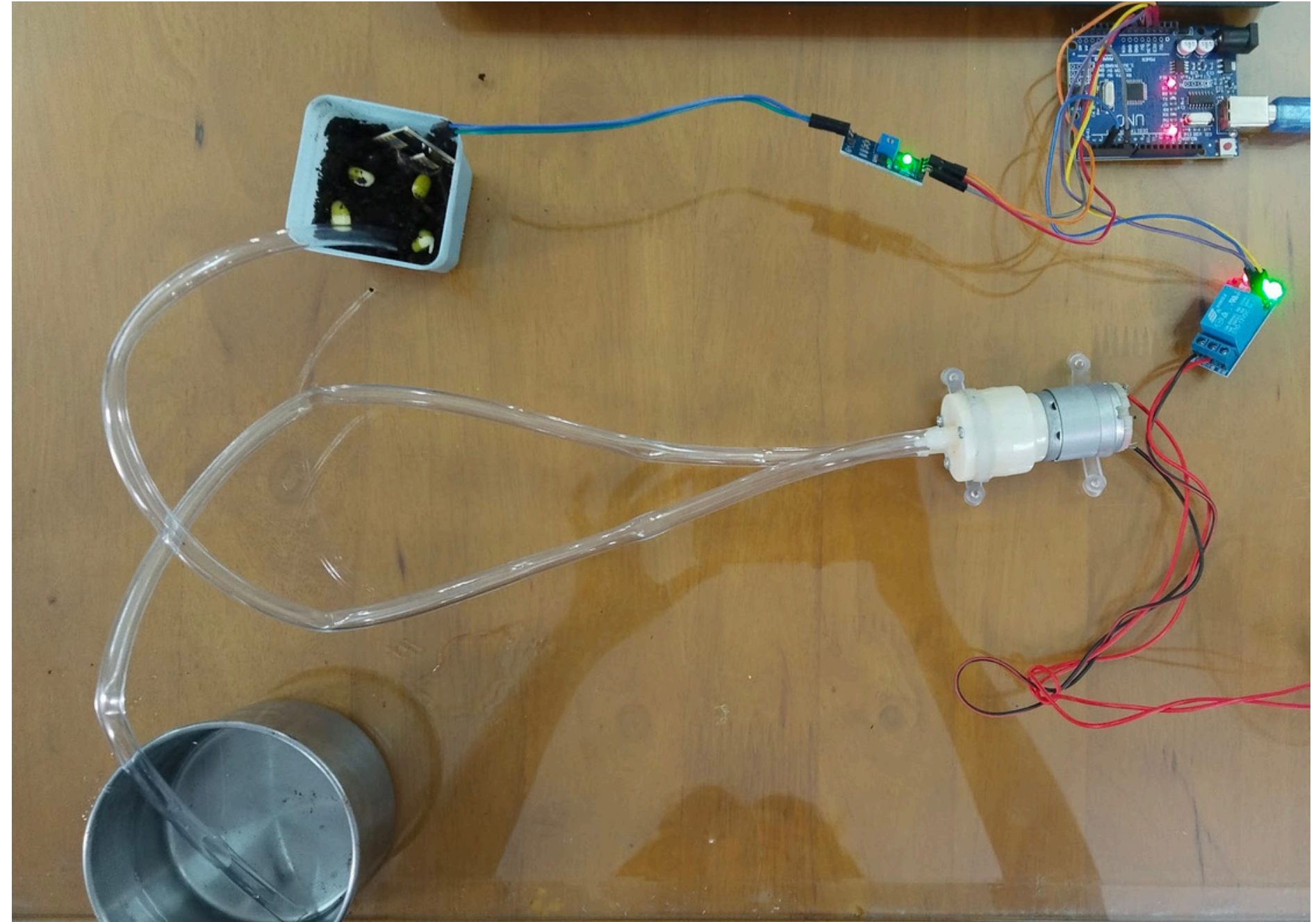
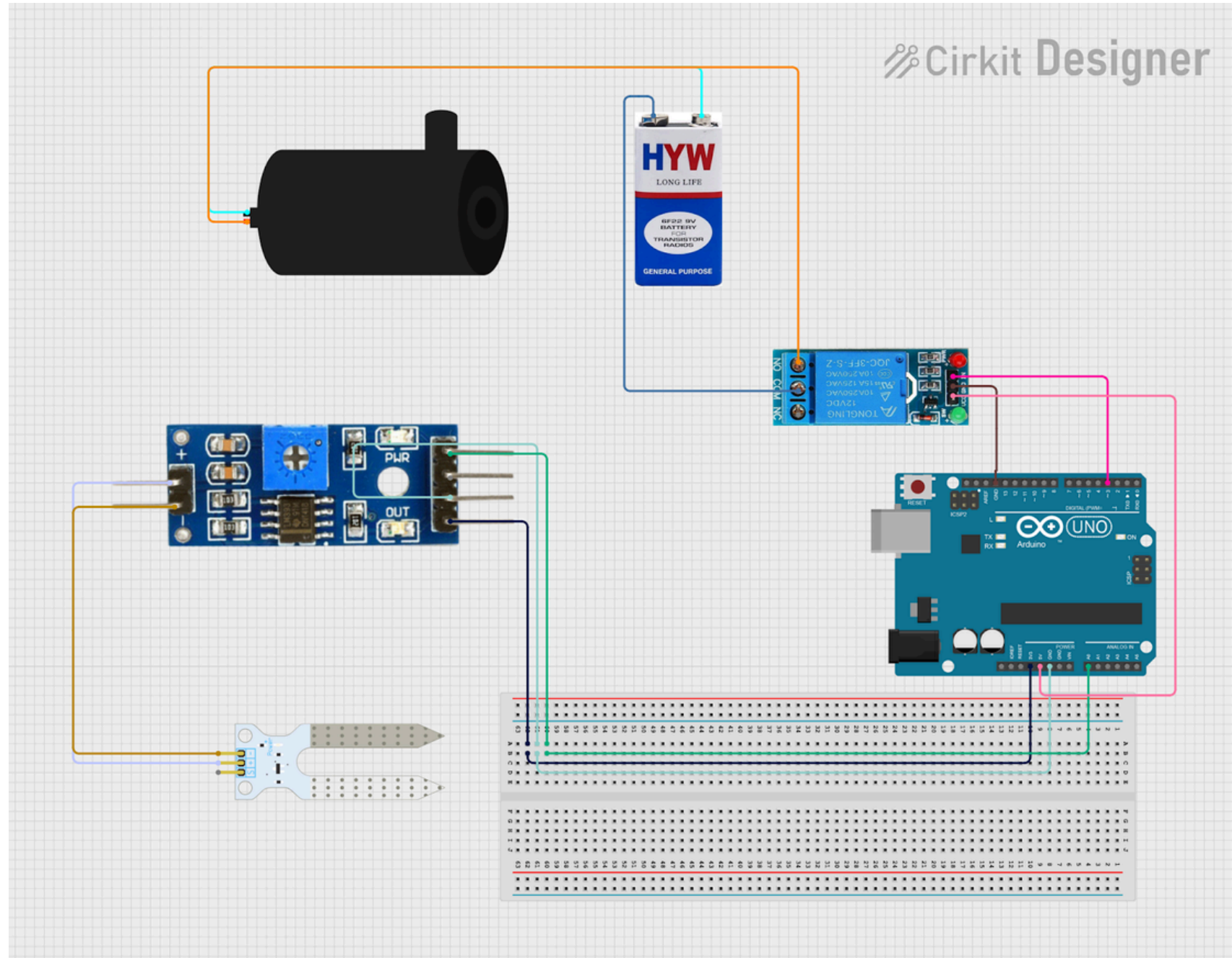
## IDE

Arduino  
VS Code



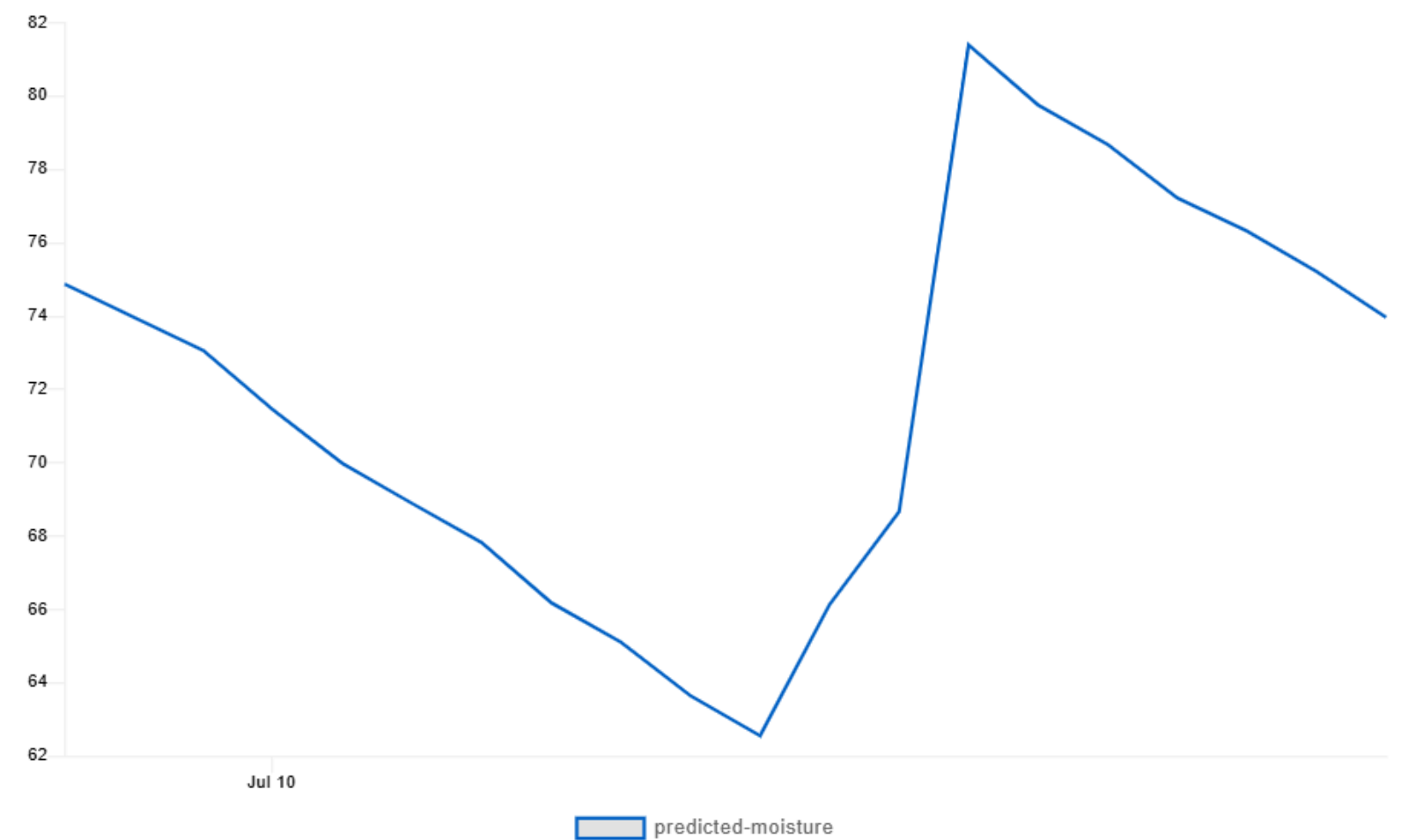
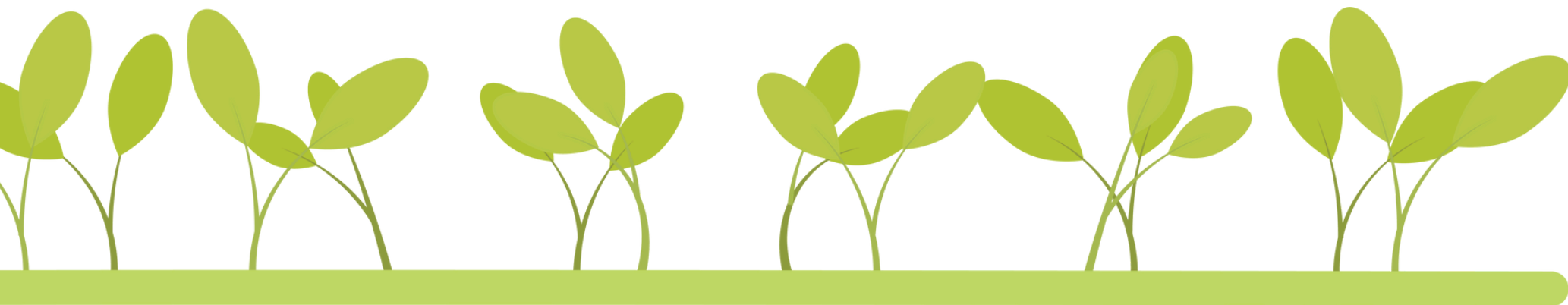


# Circuit

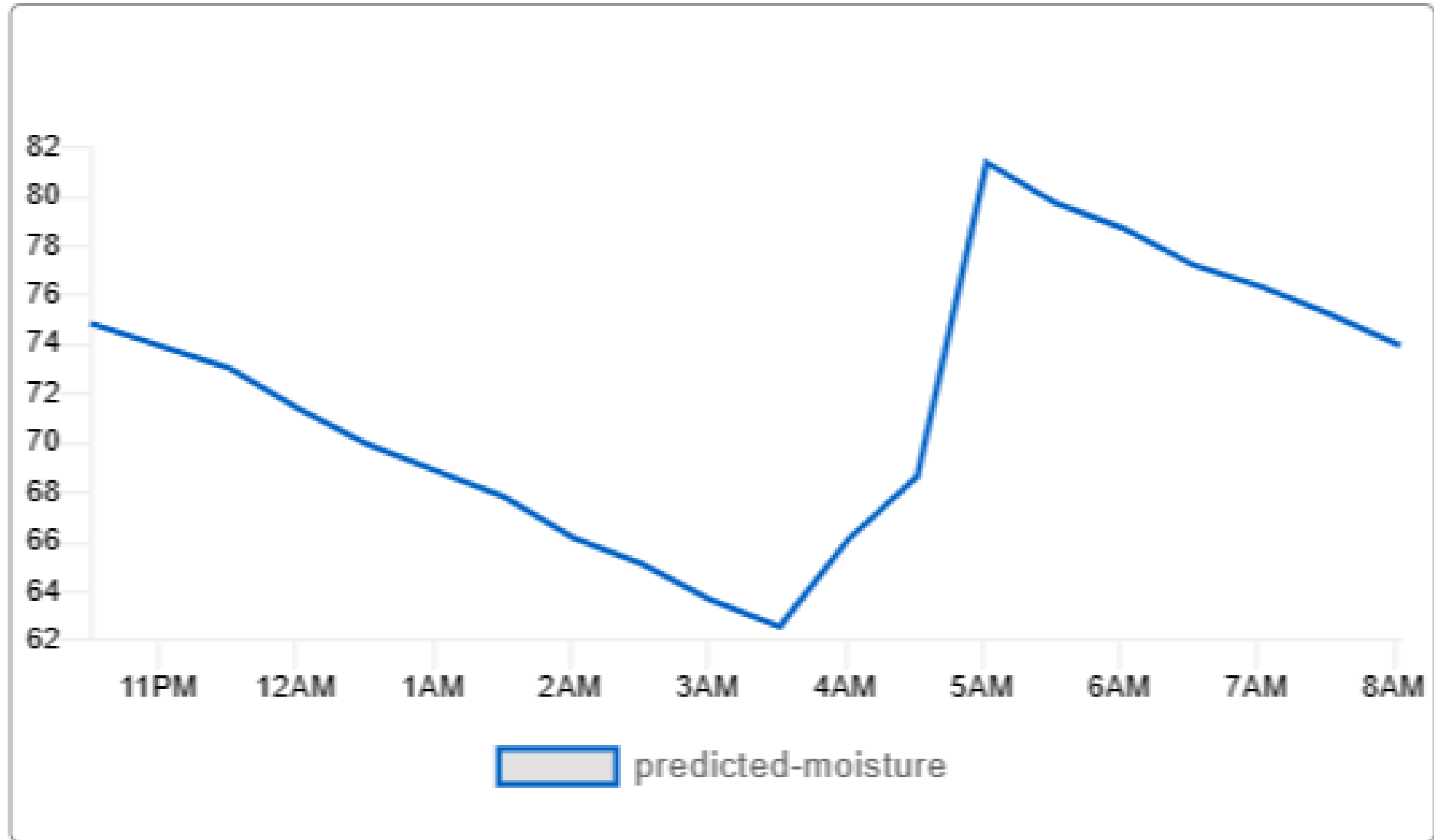
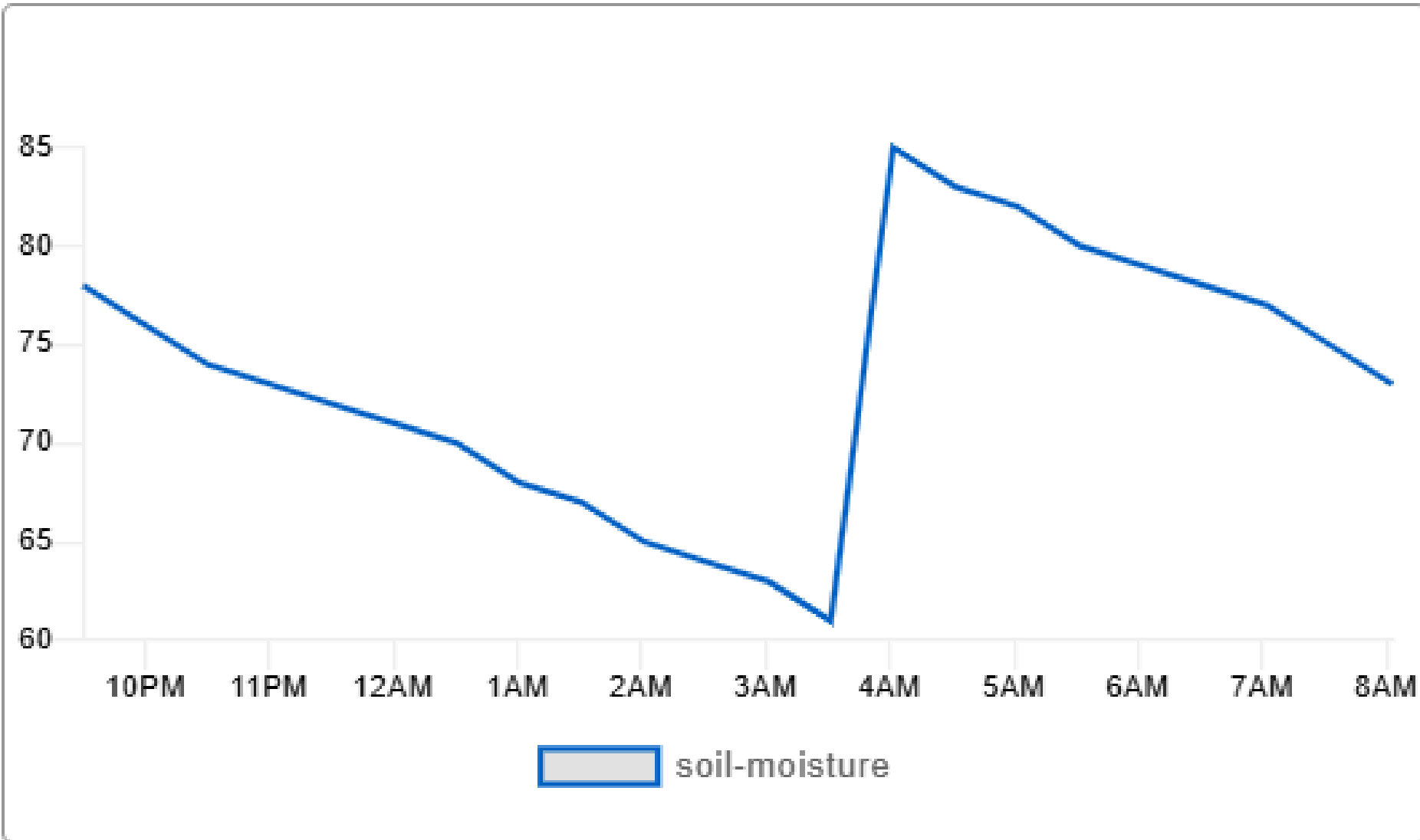


# Model

- Linear Regression Model
- Using historical data
- Predict soil moisture



# Adafruit IO







# Result

- 3–5 days to sprout
- About 1 week to grow
- Automatically watered



**Thank you  
very much!**