# WIND TURBINE GENERATOR

SPRINT 2


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# SPRINT BACKLOG

| Sprints and milestones | Story points |
| --- | --- |
| Sprint: Nov 12 - Nov 26<br>Start **Nov 12, 2021** Due by **Nov 26, 2021** Duration: **15 days** | 69 / 69 |

| **Completed issues and pull requests** | **Story points** |
| --- | --- |
| Read Documentation MCP23017 learning<br>wind_turbine_generator #7 added 14 days ago Closed | 3 |
| Test MQTT Broker testing<br>wind_turbine_generator #9 added 14 days ago Closed | 8 |
| Test Data Producer 2 testing<br>wind_turbine_generator #11 added 14 days ago Closed | 8 |
| Data Producer 2 development enhancement<br>wind_turbine_generator #13 added 14 days ago Closed | 13 |
| MQTT Broker Development enhancement<br>wind_turbine_generator #17 added 14 days ago Closed | 13 |
| Read Documentation about NodeMCU module learning<br>wind_turbine_generator #19 added 14 days ago Closed | 3 |
| Documentation Sprint 2 documentation<br>wind_turbine_generator #25 added 14 days ago Closed | 8 |
| Data Producer 2 documentation documentation<br>wind_turbine_generator #27 added 7 days ago Closed | 8 |
| MQTT Broker documentation documentation<br>wind_turbine_generator #28 added 7 days ago Closed | 5 |

# SPRINT DEFINITION

User Stories

## MQTT Broker

As user I will gather the data from my data producers using MQTT.

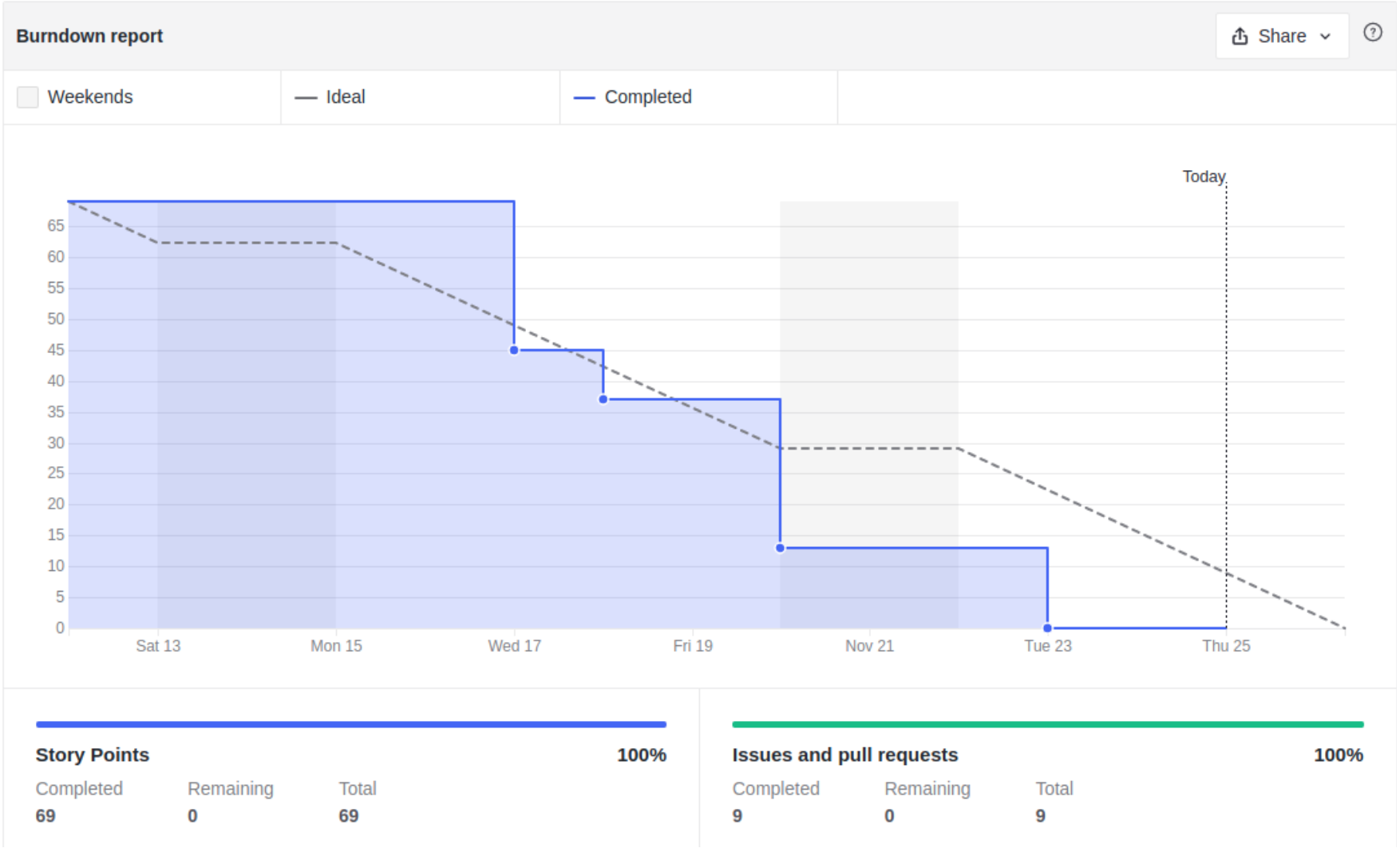
## Accelerometer

As user I would like to know the Wind Turbine Generator movement.

## Sprint Goal

Develop Data Producer 2 & MQTT Broker

# SPRINT REVIEW



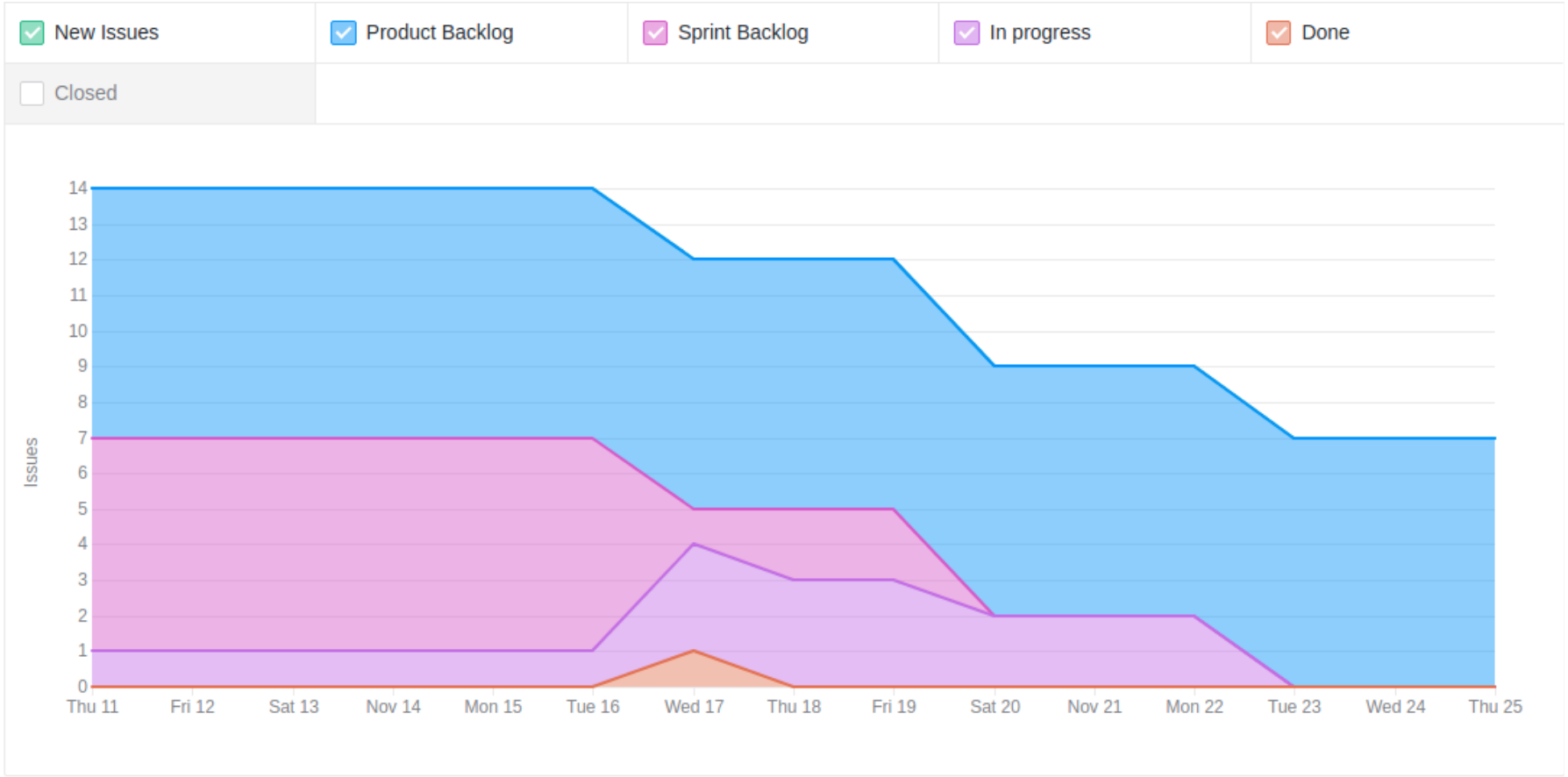

14 days

35h dedication time

69/69

story points completion

# SPRINT REVIEW

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# DATA PRODUCER 2

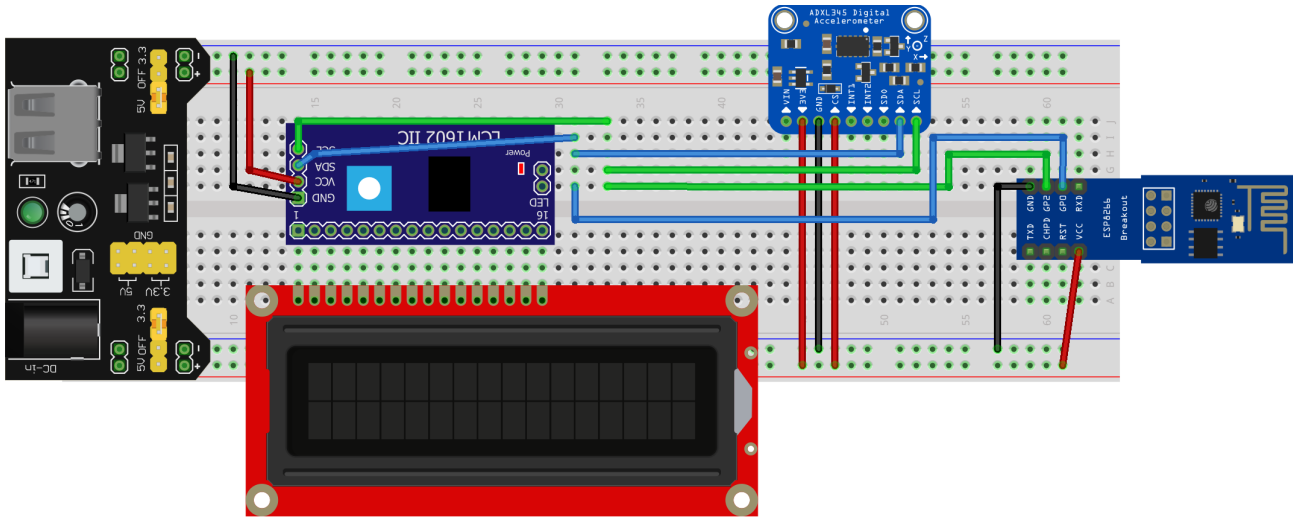
## Material

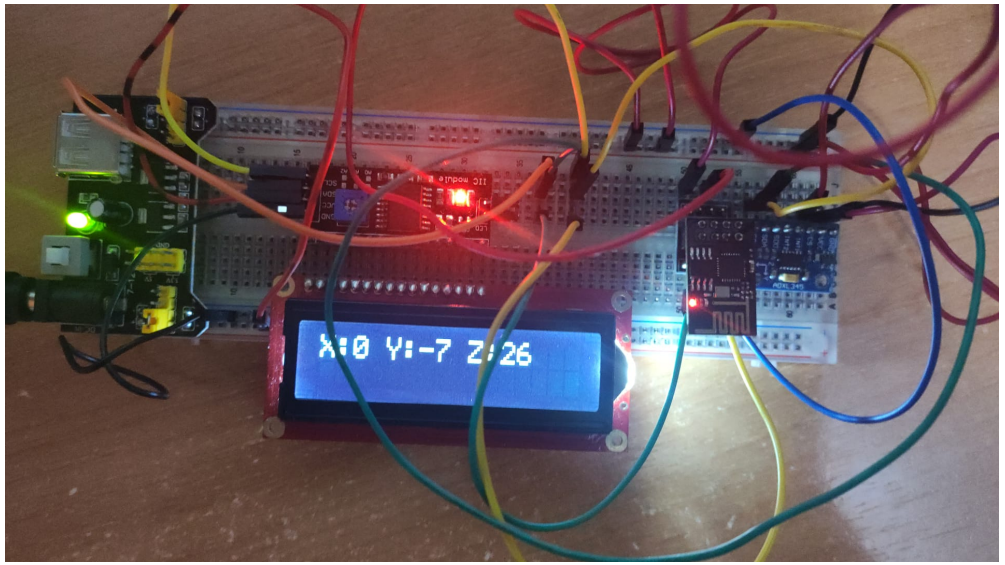
1. ESP-01 (3.3 V)
2. BreadBoard
3. LCD Display (5V)
4. ADXL345
5. I2C Bus
6. VCC Protoboard Adapter (3.3V, 5V)
7. ESP Programmer Module (**Driver required**)
8. Wires

## Installed

1. Driver for USB adapter to ESP-01 in PROG mode.
2. ESP8266 Board from Boards Manager
3. SparkFun ADXL345 & Adafruit Unified Sensor by Adafruit libraries
4. LiquidCrystal I2C & PubSubClient (**Github**)

# DATA PRODUCER 2



# MQTT BROKER

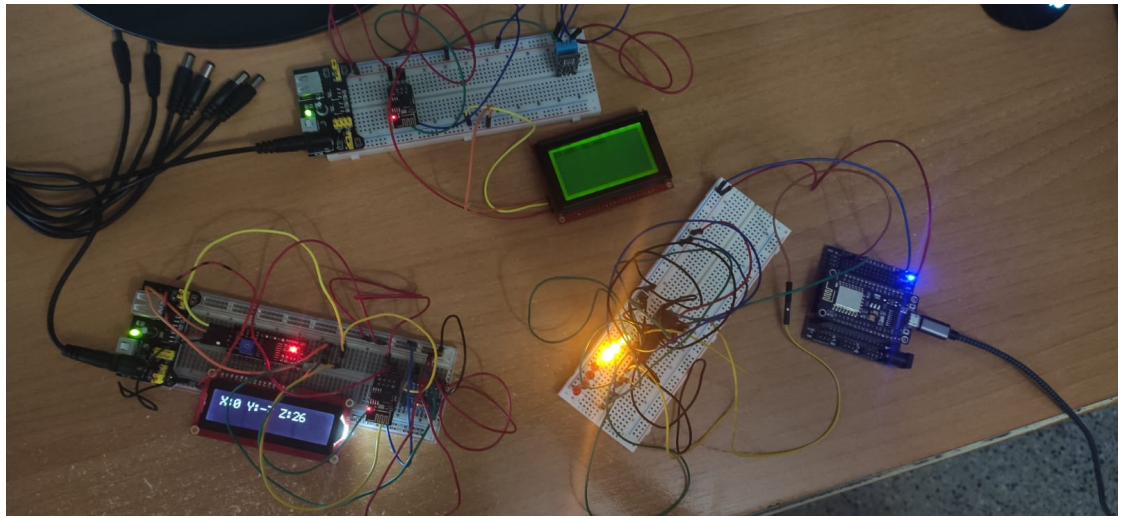
## Material

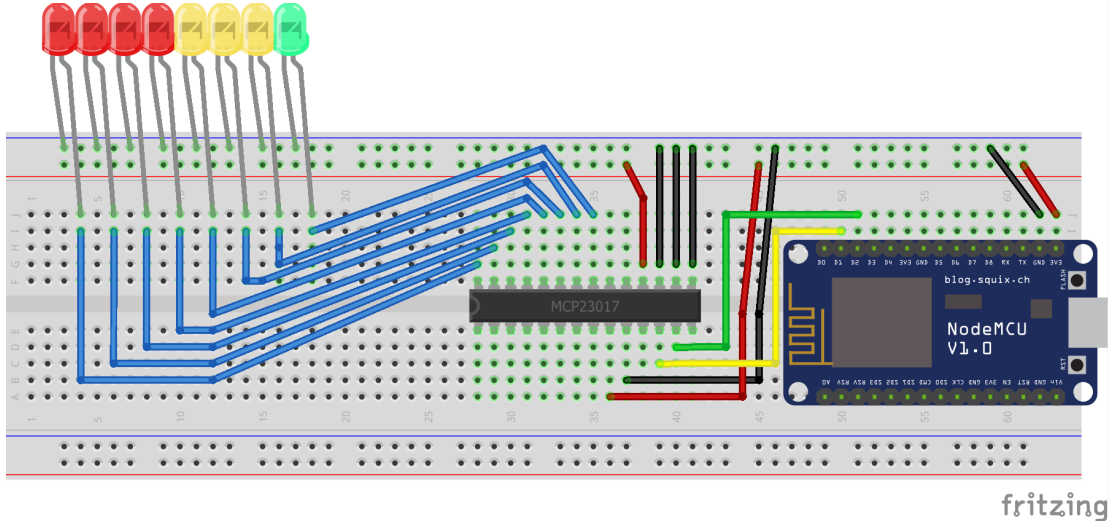
1. NodeMCU v1.0
2. BreadBoard
3. Wires
4. LED
5. MCP23017

## Installed

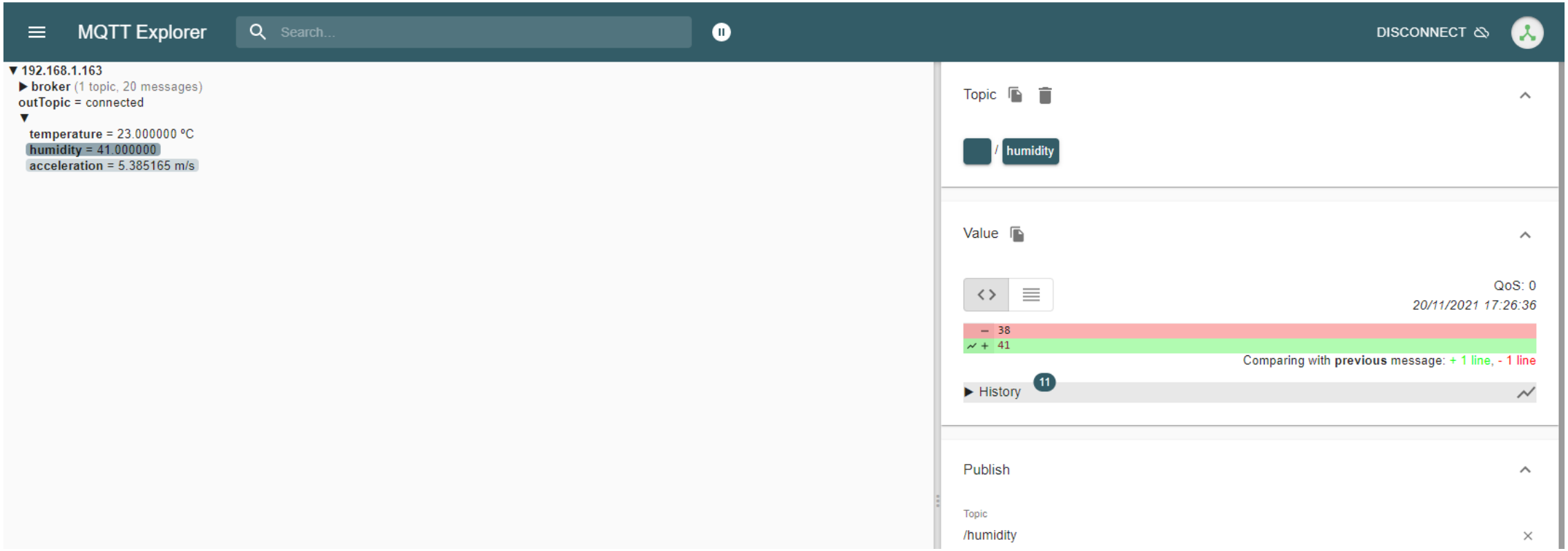
1. Adafruit MCP23017 & Adafruit Unified Sensor by Adafruit libraries
2. uMQTTBroker (**Github**)

# MQTT BROKER





# TESTING MQTT



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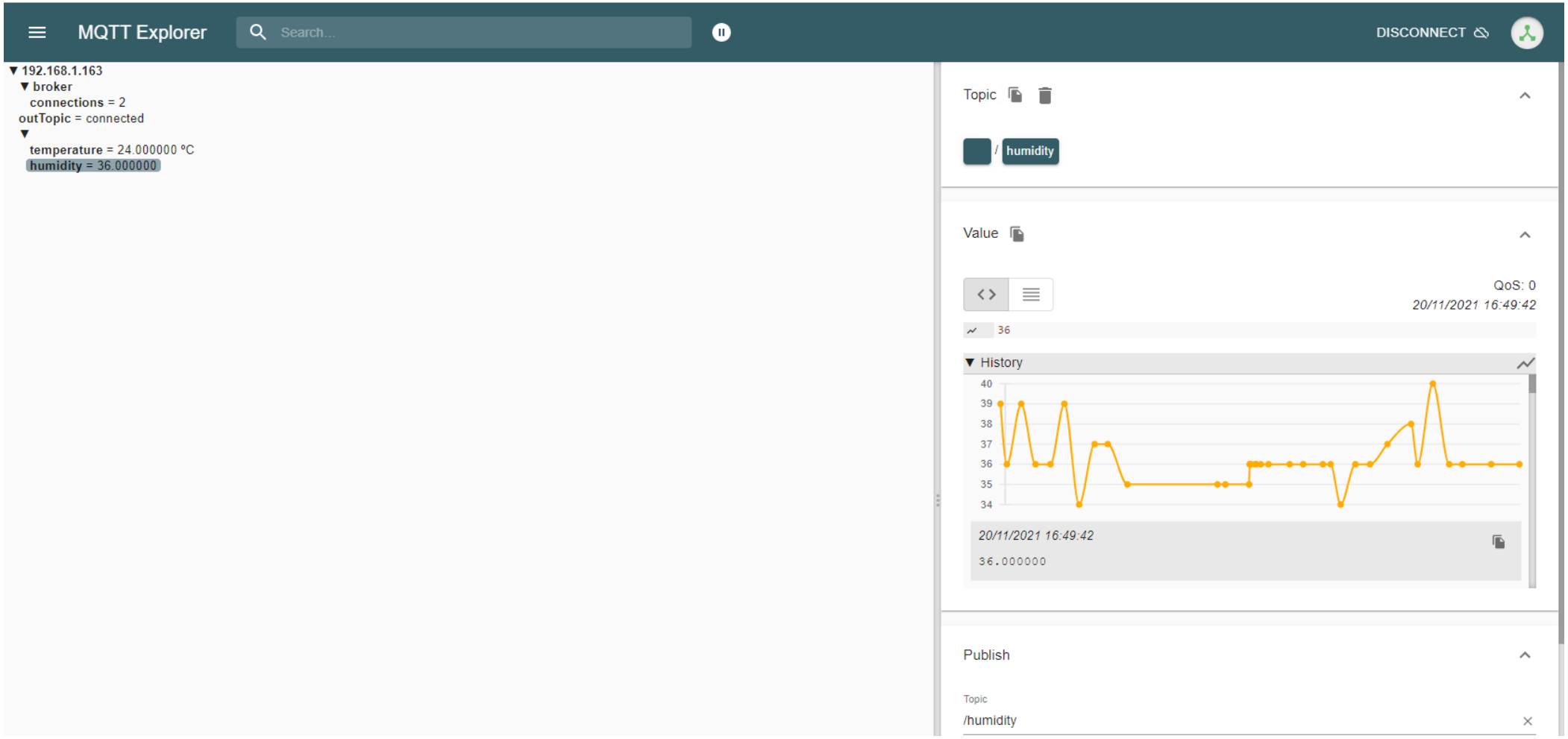

# NEXT SPRINT

| | 7 Open | 21 Closed | Author | Label | Projects | Milestones | Assignee | Sort |
|---|---|---|---|---|---|---|---|---|

- **Arduino interaction with R.Pi** enhancement
  #16 opened 29 days ago by mvp17 Product Backlog 8
- **Ultrasonic LED bar representation** enhancement
  #15 opened 29 days ago by mvp17 Product Backlog 8
- **Data Consumer: Data log and Screen representation** enhancement
  #14 opened 29 days ago by mvp17 Product Backlog 8
- **Test Supervision Station** testing
  #8 opened 29 days ago by elskater98 Product Backlog 5
- **Arduino interaction with ESP-01** enhancement
  #6 opened 29 days ago by mvp17 Product Backlog 8
- **Install ChibiOS to Raspberry Pi** enhancement
  #3 opened 29 days ago by elskater98 Product Backlog 3
- **Prepare Raspberry Pi Environment** learning
  #2 opened 29 days ago by elskater98 Product Backlog 3