Sprint 2 Delivery

MINF UDL 20-21

Ubiquitous and embedded systems

Team 1

Content:

    a. Backlog tasks;

        i. Dedication to each task;

    b. Sprint definition;

    c. Percentage of Sprint Completion;

    d. Sprint Review

    e. Next Sprint goals

Effort obtained through poker strategy of scrum time, being a medium between all members' opinions (range between 1-9).

    a. **Backlog tasks:**

        i. Prepare the IDE - R.Pi + ChibiOS 3 effort points sprint 2 (Group Task)

        ii. Define the checking/test process 5 effort points sprint 2 (Danillo)

        iii. ESP-01 <-> Arduino interaction 3 effort points sprint 2 (Danillo)

iv.   Data Producer 1 development 4 effort points sprint 2 (Yoon)
v.   Data Producer 2 development 4 effort points sprint 2 (Ronnel)
vi.   Presentation Effort: 2 (Yoon)

b. Sprint definition

Sprint 2: - "In this sprint the objective is to develop some of the core components of the project, like the sensors and the wireless senders and receiver to meet the requirements of some user stories."

i.   Related User Stories:

1. **It is necessary to obtain the temperature and humidity of a tank container -> so that way we can monitor it.**
   a. Acceptance criteria:
      i.   The ESP-01 of the Data Producer 2 must obtain the measurements of the DHT11 sensor.
      ii. The ESP-01 of Data Producer 1 must send this measurement to the receiver ESP-01.
   b. Related tasks:
      i.   Data Producer 2 development.

2. **It is necessary to obtain the chemical compound level of the tank container -> so that we can monitor it.**
   a. Acceptance criteria:
      i.   The ESP-01 of the Data Producer 1 must obtain the measurements of the HC-SR04 sensor.
      ii. The ESP-01 of Data Producer 1 must send this measurement to the receiver ESP-01.
   b. Related tasks:
      i.   Data producer 1 development.

3. **Sensor data must be sent to a remote controller -> so that way the data can be received and displayed.**
   a. Acceptance criteria:
      i.   Both Data Producers must sent the data to the remote controller (received by the ESP-01 connected to the Arduino)
   b. Related tasks:
      i.   ESP-01 <-> Arduino Integration.

c. Percentage of Sprint completion

i. Prepare the IDE - R.Pi + ChibiOS 100%
ii. Define the checking/test process 80%
iii. ESP-01 <-> Arduino interaction 100%
iv. Data Producer 1 development 100%
v. Data Producer 2 development 100%

d. Sprint review / Sprint goal

"The goal of this sprint was to develop some of the basic needs of data producing and receiving which will be necessary for the final project , by achieving it the group will be able to continue the development implementing new features in order to meet the requirements for the user stories."

e. Next Sprint goals

Sprint 3: "The goal of this sprint is to develop some important features needed to the final project, such as graphical representation and interaction between the components of the main part of the project"

Sprint 3 Tasks:

- How to -> LCD Screen - Effort: 2 - Ron
- How to -> I2C protocol - Effort: 8 - Yoon/Danillo
- How to -> PCF 8754 - Effort: 4 - Ron
- R.Pi <-> Arduino interaction - Effort: 9 - Yoon/Danillo
- Presentation - Effort: 2 - Danillo