A.1.3 Learning Activity

Objective

Carry out an investigation and presentation to be exposed in class on the topic of sensors.

Development

1. Use the following list of commercial sensor models to develop your activity:
    - [ ] 1.1 Sensor Encoder infrarrojo FC-03
    - [ ] 1.2 Sensor de presencia par emisor/receptor QRD1114
    - [ ] 1.3 Sensor detector de presencia Ultrasónico HC-SR04
    - [x] 1.4 Sensor Temperatura y humedad DHT11
    - [ ] 1.5 Sensor Temperatura y humedad DHT12
    - [ ] 1.6 Sensor de color RGB TCS34725
    - [ ] 1.7 Sensor Control Remote infrarrojo AX-1838HS
    - [ ] 1.8 Sensor seguidor de pistas TCRT5000
    - [ ] 1.9 Sensor de movimiento PIR HC-SR501
    - [ ] 1.10 Sensor de distancia óptico Sharp 2Y0A02/GP2Y0A02YK0F
2. Wait for the advisor to indicate what type of sensor will be the one that your team will develop and once you have, mark the sensor within the previous point.
3. Once you know the topic to be developed, investigate and write the following points within this document:
    - **Cover**, student information, advisor, career, subject, date..
    - **Introduction**, a brief description of what the topic will be about.
    - **Development**
        - **Definición**
        - **Images** of the sensor
        - **Physical** features
        - **Electrical** features
        - Explain how it behaves with the **environment** or what stimuli it responds to.
        - Applicative uses
        - You can rely on a video that should not last more than 1/3 of the time of its presentation.
    - **Conclusions** for each of the team members.
    - **Bibliography**, add within this section all bibliography in which you support the development of the activity, using tags and links.

Bibliography

DHT11 Video

Mouser Electronics. (s. f.). DHT11 Humidity & Temperature Sensor. mouser. Recuperado 24 de marzo de 2021

Hernández, L. D. V. (2021, 23 marzo). Cómo utilizar el DHT11 para medir la temperatura y humedad con Arduino. Programar fácil con Arduino.

Alzate, O. F. (s. f.). DHT11 datasheet. Codigo Electronica. Recuperado 24 de marzo de 2021

Ir a presentacion

4. Insert images of **evidence** such as meetings of the team members held for the development of the activity.

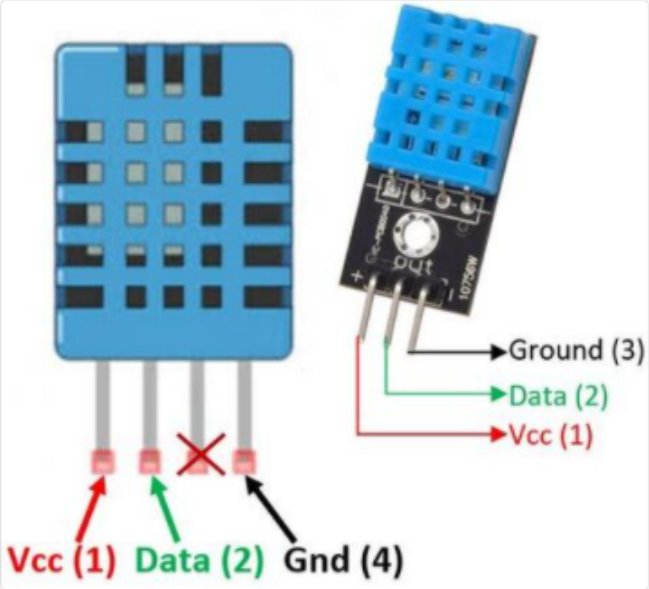
NELLY JAZMIN QUINO HERNANDEZ 15:05
Hoy aprovechamos la hora de la clase para hacer el avance?

FRANCISCO JAVIER VILLARREAL FELIX 15:05
Sip me parece bien

JOSE ANTONIO GUZMAN LUGO 16:38
deacuerdo

JOSE ANTONIO GUZMAN LUGO 18:32
https://www.mouser.com/datasheet/2/758/DHT11-Technical-Data-Sheet-Translated-Version-1143054.pdf

FRANCISCO JAVIER VILLARREAL FELIX 18:34
Sensor-de-temperatura-y-humedad-7.jpg



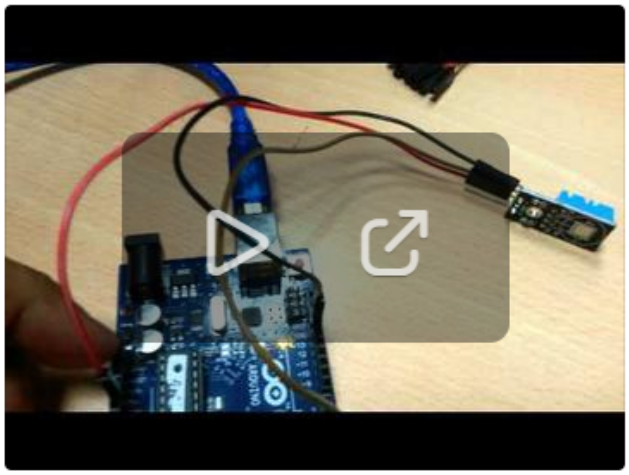
FRANCISCO JAVIER VILLARREAL FELIX 18:40
imagen mas detallada de como es el DHT11

NELLY JAZMIN QUINO HERNANDEZ 18:40
En este video explican como funciona

https://www.youtube.com/watch?v=rxVttb3yvRk&ab_channel=JuanJos%C3%A9Pizarro

Prueba sensor dht11

Miércoles, 2



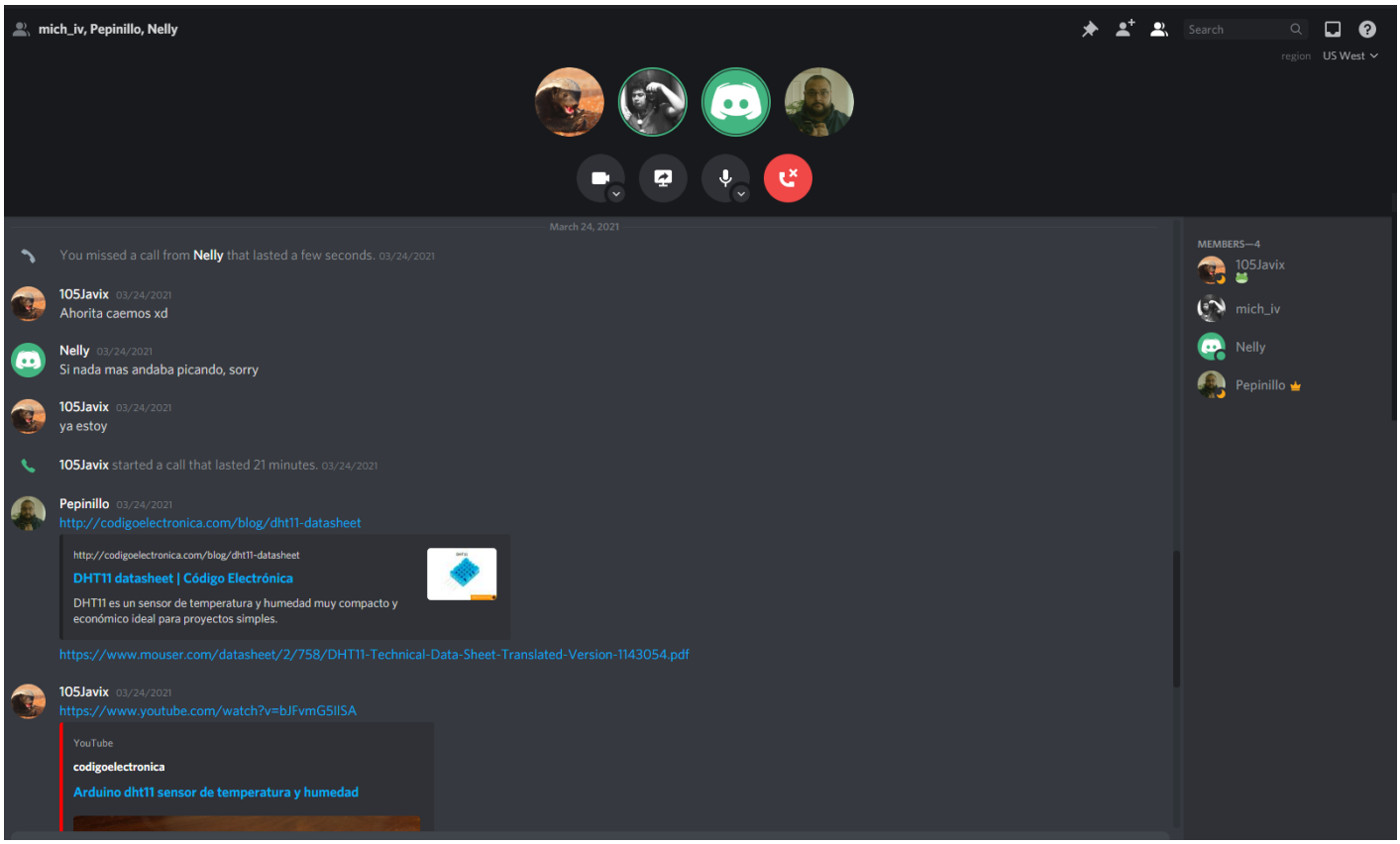
Ho

NELLY JAZMIN QUINO HERNANDEZ 19:15
https://docs.google.com/presentation/d/14jNkFVnfP9Ox9qqzfPiBoHXUI4kt-t5V9TEhZ3GnsOk/edit?usp=sharing

MICHELLE IVAN GASCA OLVERA 19:17
Aquí hay ejemplos en donde se usa el sensor

https://programarfacil.com/blog/arduino-blog/sensor-dht11-temperatura-humedad-arduino/

Programar fácil con Arduino
Cómo utilizar el DHT11 para medir la temperatura y humedad con Arduino
El DHT11 es un sensor digital que nos mide la temperatura y la humedad con Arduino.
Aprende a utilizarlo con este tutorial paso a paso DHT11.
20 mar. 2017 (27 kB)



5. Include the individual conclusions and results observed during the development of the activity.

Nelly Quino

DHT11 Temperature & Humidity is an economic sensor, it help us to understand how to communicate through a cable to get data of the ambiente temperature & humidity. Due to it's easy handling and ranges of Temperature & Humidity is used in diferents areas like indistry, greenhouses, offices, etc.

José Guzmán

El sensor DHT11 es un sensor para medir la temperatura y humedad, este sensor se utiliza principalmente en áreas pequeñas, esto no es un inconveniente por que se utiliza principalmente en oficinas invernaderos entre otros, este sensor es utilizado principalmente por su bajo costo y su fácil manejo, sin embargo, este no es el sensor más preciso.

Michelle Gasca

El DHT11 es un sensor básico para cualquier necesidad que requiera la medición de temperatura. Sus mediciones no son las más altas, pues existen otros sensores con más precisión, pero cumplen con la necesidad, y sin mencionar el precio del mismo, lo convierte en algo indispensable a la hora de la medición de temperatura.

Francisco Villarreal

The DHT11 sensor is a sensor that can meet the basic needs of measuring temperature and humidity in small areas, with a low price and with a not very high margin of error, it is easy to get and handle. Together with an Arduino, simple projects can be made to activate a device depending on the temperature or humidity or simply be used to collect information to be processed in some other way.

💣 Rubric

Criteria	Description	Score
Instructions	Do you fulfill each of the points indicated in the instruction section?	10
Sevelopment	Did you answer each one of the points requested in the development of the activity?	60
Demonstration	Was the student present in the explanation of the functionality of the activity?	20
Conclusions	Se incluye una opinión personal de la actividad por cada uno de los integrantes del equipo?	10

🎓 Members repositories

🐞 Nelly Quino

🐸 José Guzmán

📷 Michelle Gasca

☕ Francisco Villarreal