



FACULTY OF ELECTRICAL  
ENGINEERING  
AND COMMUNICATION

department

of radio electronics

# Interfacing with LEDs and DHT12

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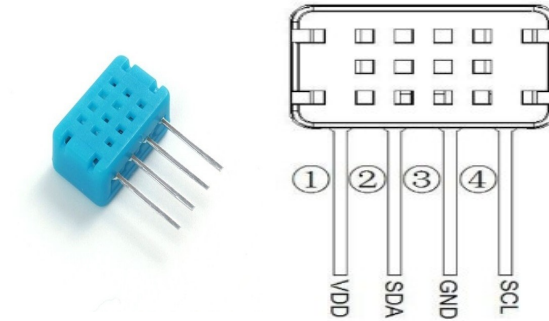
# MAIN OBJECTIVES

- Improve our knowledge about how the DHT12 and the Arduino microcontroller work.
- Use the knowledge we learned in the subject to create a system to prevent the DHT12 sensor crashing.
- Learn how to use the UART communication and improve our programming skills.



# COMPONENTS USED

- DHT12 sensor

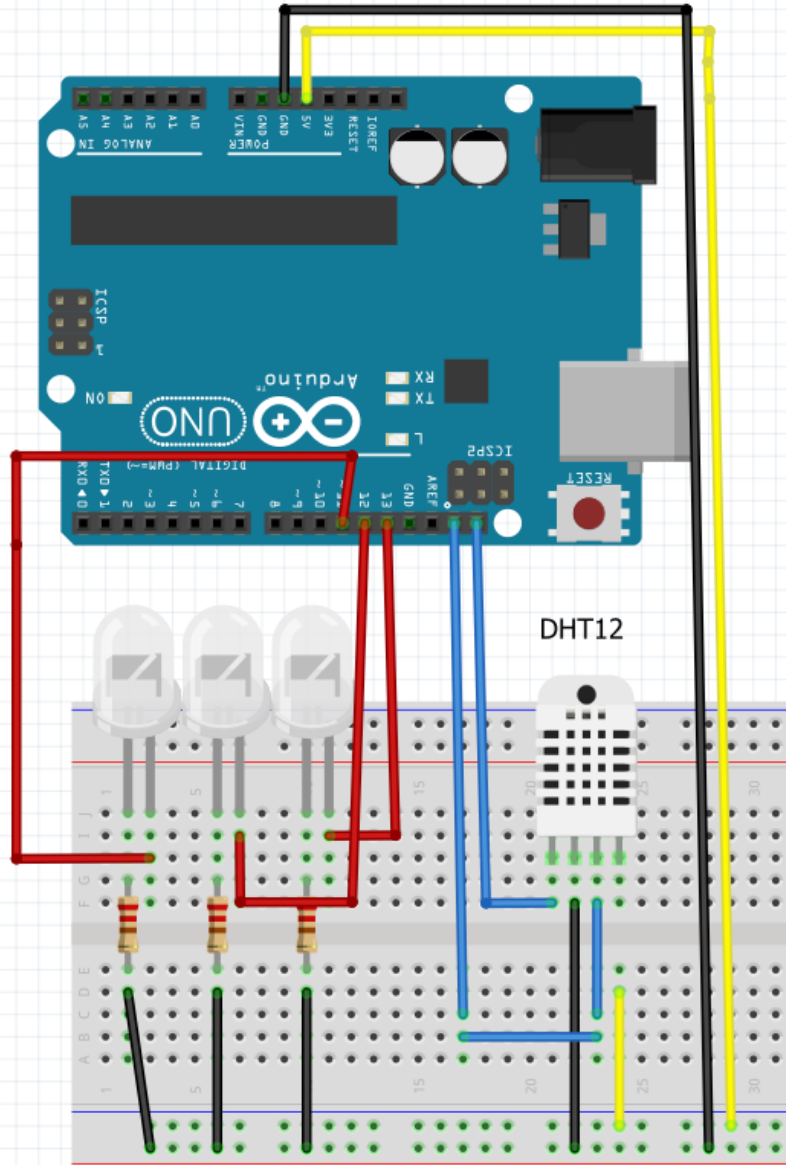


- Coloured LEDs (blue, green and red)

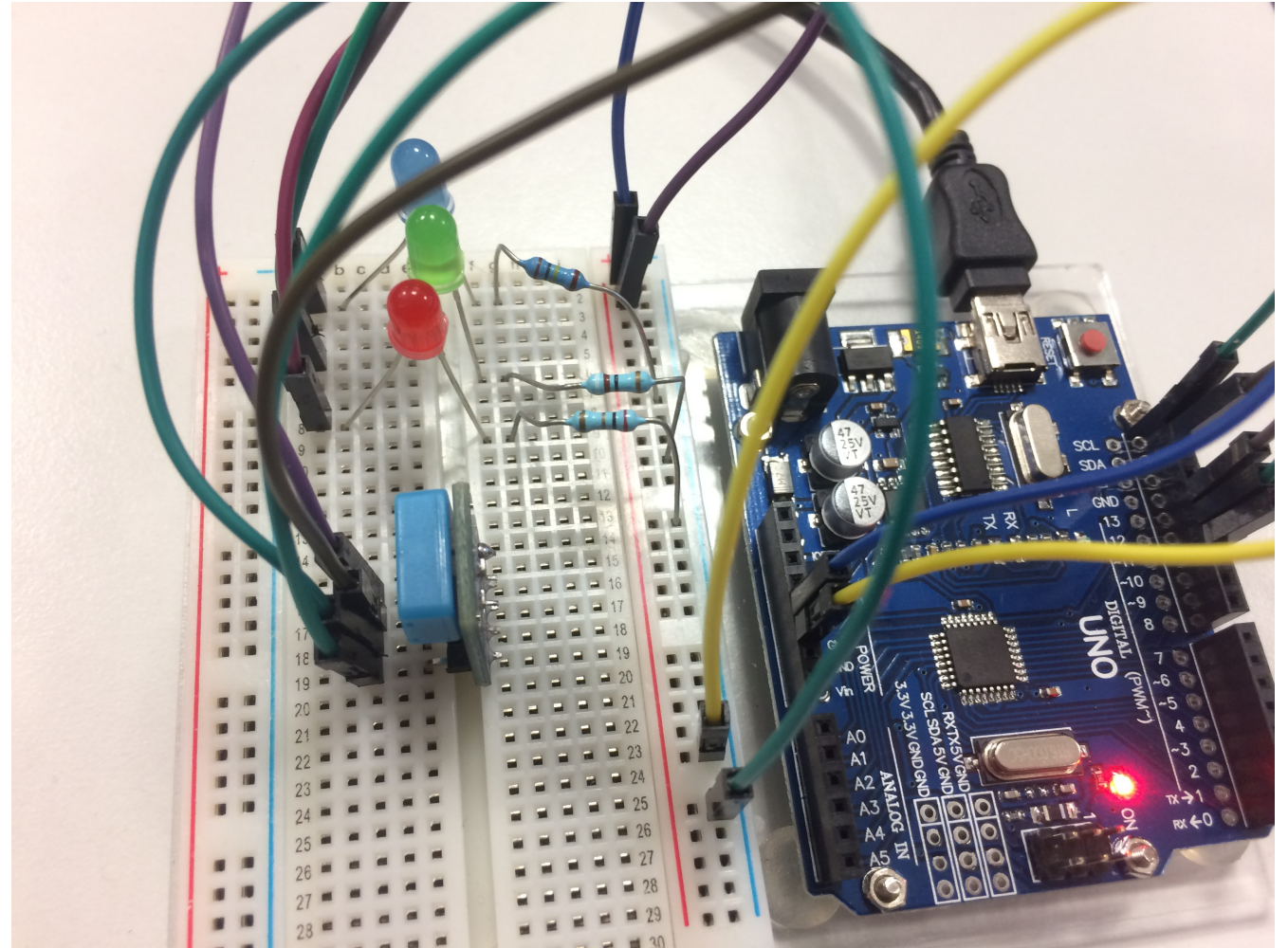


- Arduino UNO board (ATmega328/P)





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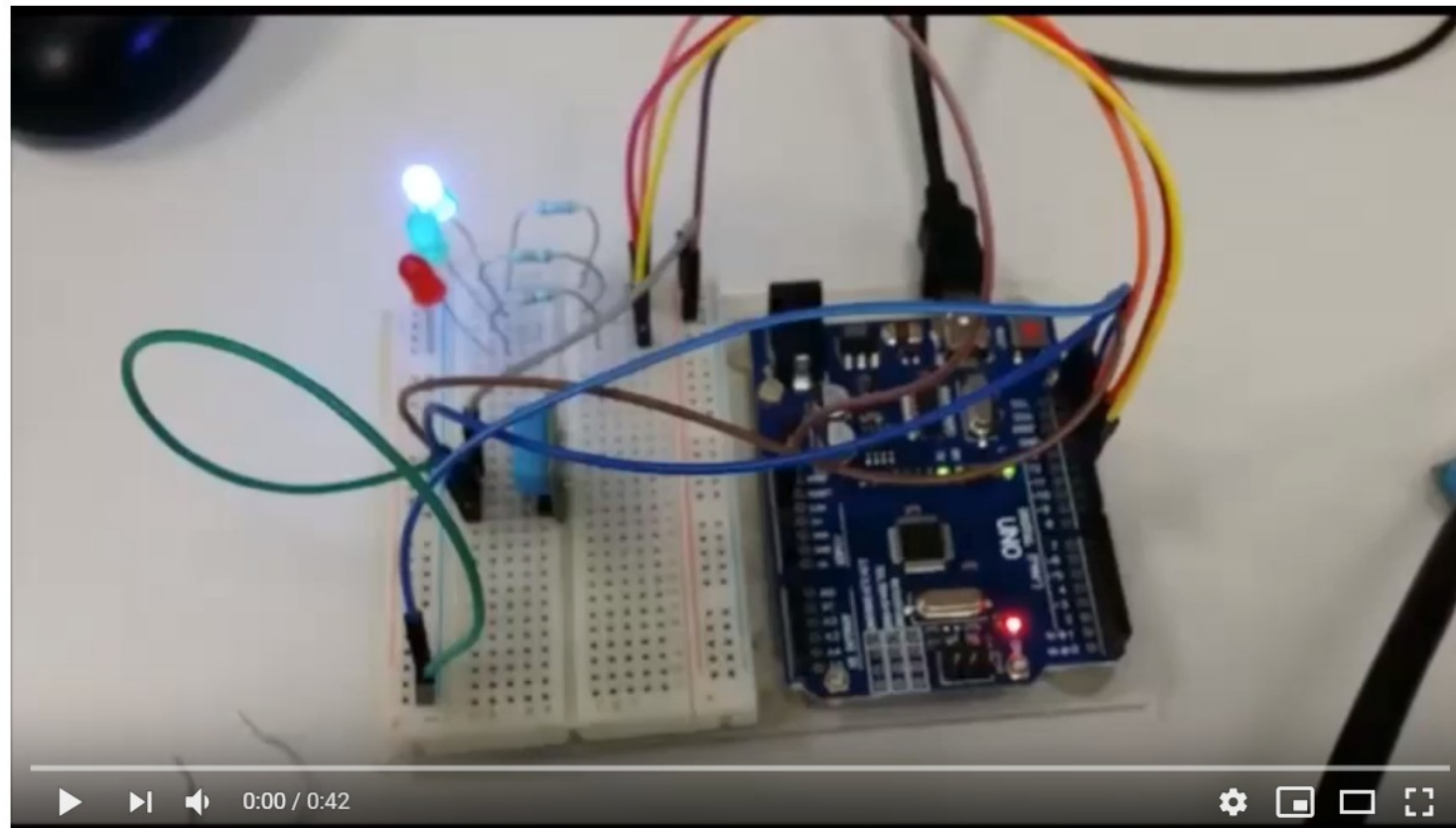


# THE APPLICATION

- We combine the DHT12 detection with the activation of different pins in the microprocessor in a C code.
- We also use the UART communication to see the temperature and humidity and how they change
- Finally if the temperature gets close to 60 degrees, the maximum temperature that DHT12 can measure, the red LED would shine and it would be advisable to get it colder.



<https://www.youtube.com/watch?v=DZBRfU3uvDU>



CMPT project