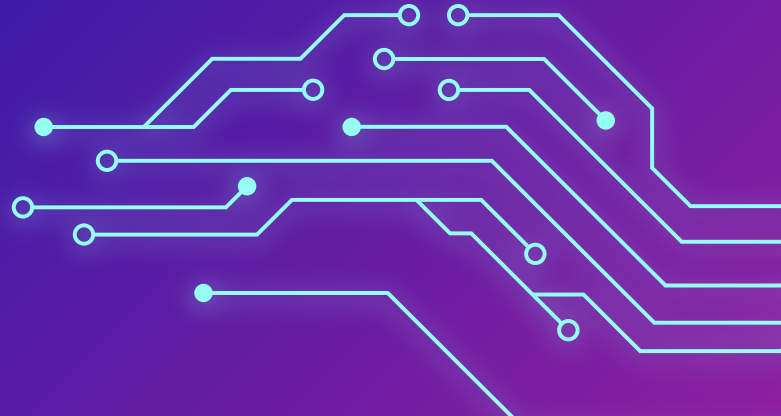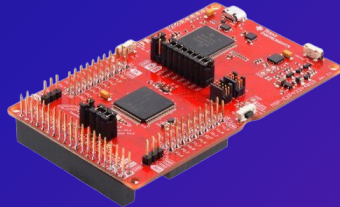# EMBEDDED SOFTWARE FOR IOT PRESENTATION

Bortolon Matteo – Bouveret Samuele

WEATHER APP

◎ Application that displays city and room temperature together with weather type

◎ API to retrieve data

◎ LCD screen to display information

◎ Using MSP432 combined with the Boosterpack MKII and the CC3100 Wi-Fi module from TI

Part 1: CC3100

CC3100
Is a Wi-Fi module used to connect to a network and fetch data.

Used API
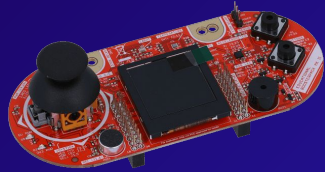A mock API with real JSON response is used for testing.

Request setup
We set up a Wi-Fi connection and the specific requests to obtain the weather data.

API response
The response from the API is stored in a text buffer and it is then displayed on the LCD.

Part 2: LCD Display

BoosterPack MKII
The Boosterpack MKII is used to display the data using the LCD screen and the push buttons.

Various cities
The supported cities are currently Rome, Moscow, New york and Tokyo.

FSM
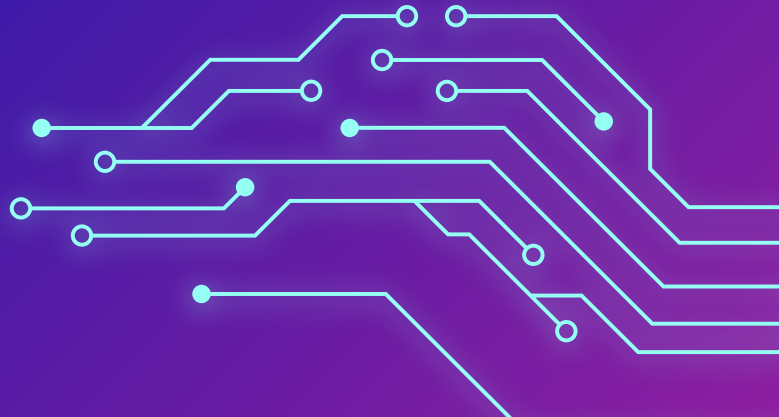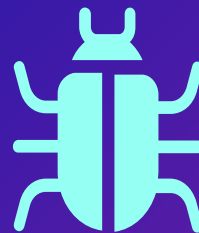A finite state machine is used to update the screen on each button press.

Room Temperature
Current temperature sensing is also implemented.

PROBLEMS ENCOUNTERED

- Compatibility between modules

- API related handling

- String parsing

POSSIBLE IMPROVEMENTS

- Allow the user choose/add cities to display

- Show local time

- Add other weather related data