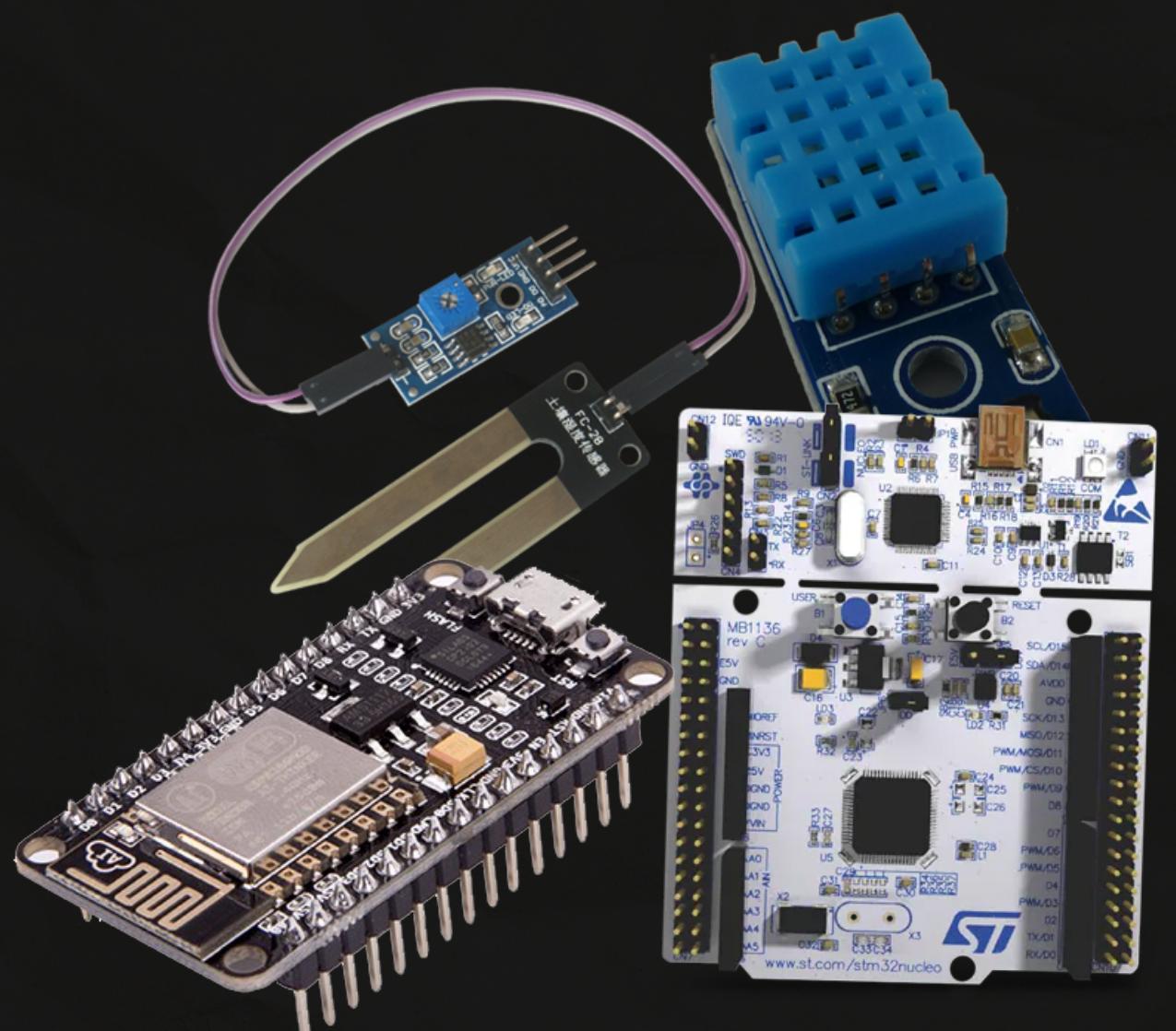


PRESENTATION BY

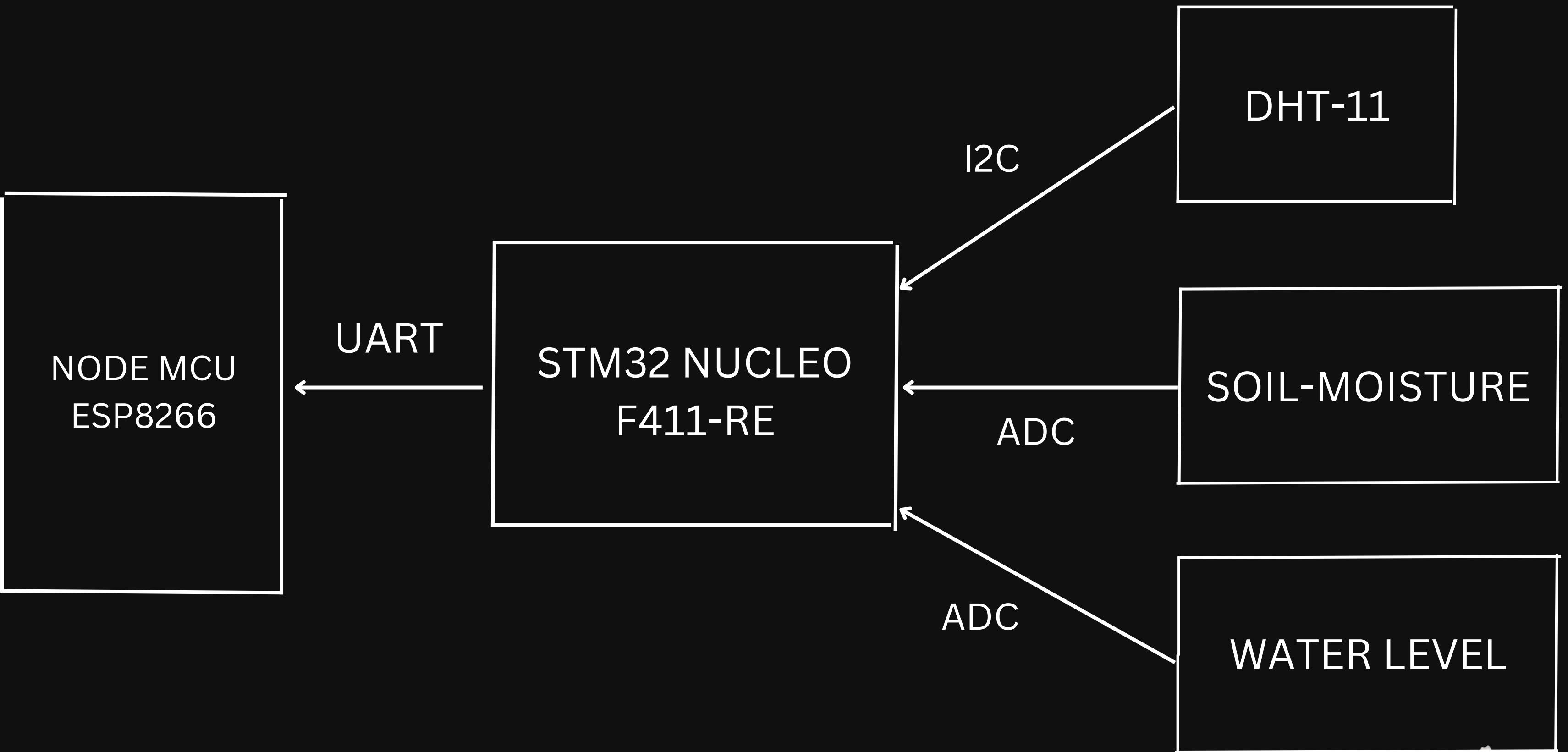
LOCKPAOMAI

2110366 EMBEDDED SYS LAB

THE HARDWARE WE USE



- ESP8266
- STM32 NUCLEO F411-RE
- SOIL MOISTURE SENSOR
- DHT-11
- LIQUID RAIN WATER LEVEL SENSOR MODULE



WORKING

STEPS

Sensors send the value to STM32

- Each sensor sends the value that it gets to STM32. DHT-11 sends via "I2C". Water level sensor sends via "ADC Interface". Soil moisture sends via "ADC Interface"



STM32 sends the data to NODE MCU

- sends with string via UART

NODE MCU send the values from STM32 to the database

Database respond the values from NODE MCU and show it on the webpage

ON THE WEBSITE

The screenshot shows a web interface for monitoring plant health. At the top, it says "Plants Watering" and "LOCK PAO MAI". Below that is a table with columns: Factor, Status, Value, Min, and Max. The table data is as follows:

Factor	Status	Value	Min	Max
temperature	Normal	20	0	21
humidity	Normal	78	73	78
water-level	Low	0.28571	0	52.76191
soil-moisture	Low	4095	4095	4095

Below the table, a button says "Water? → YES !!". At the bottom, it shows "Current Time: 5/26/2023 1:46:52 AM" and "Last Updated Time: 5/26/2023 1:46:48 AM".

DISPLAY THE VALUES FROM SENSOR TO THE WEB PAGE.

- Details like status, value, min and max value that have ever measured
- In the top right corner, measurement for each status factor is also displayed as the pop-up. User has to click it to see the whole measurement

MEASUREMENT

VARIABLE	LOW	NORMAL	HIGH
Temperature	< 15°C	15°C - 35°C	> 35°C
Humidity	< 50%RH	50%RH - 90%RH	> 90%RH
Water Level	< 10%	10% - 90%	> 90%
Soil Moisture	> 3500	2800 - 3500	< 2800

[EXIT](#)

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