

Mining Environment Inspection Module

ECEN 5613 – Embedded System Design
Project Demo

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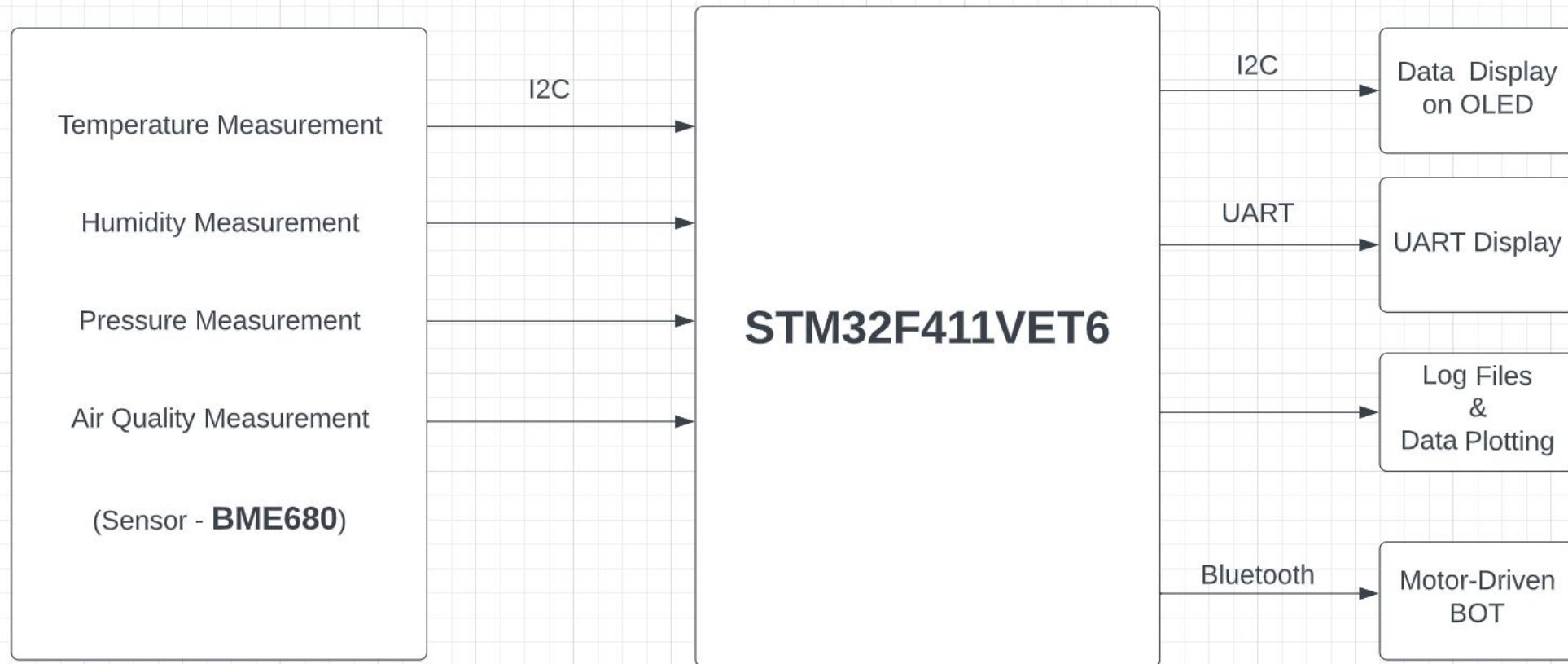
University of Colorado **Boulder**

Mining Environment Inspection Module
(Mrunal Yadav & Vaishnavi Patekar)

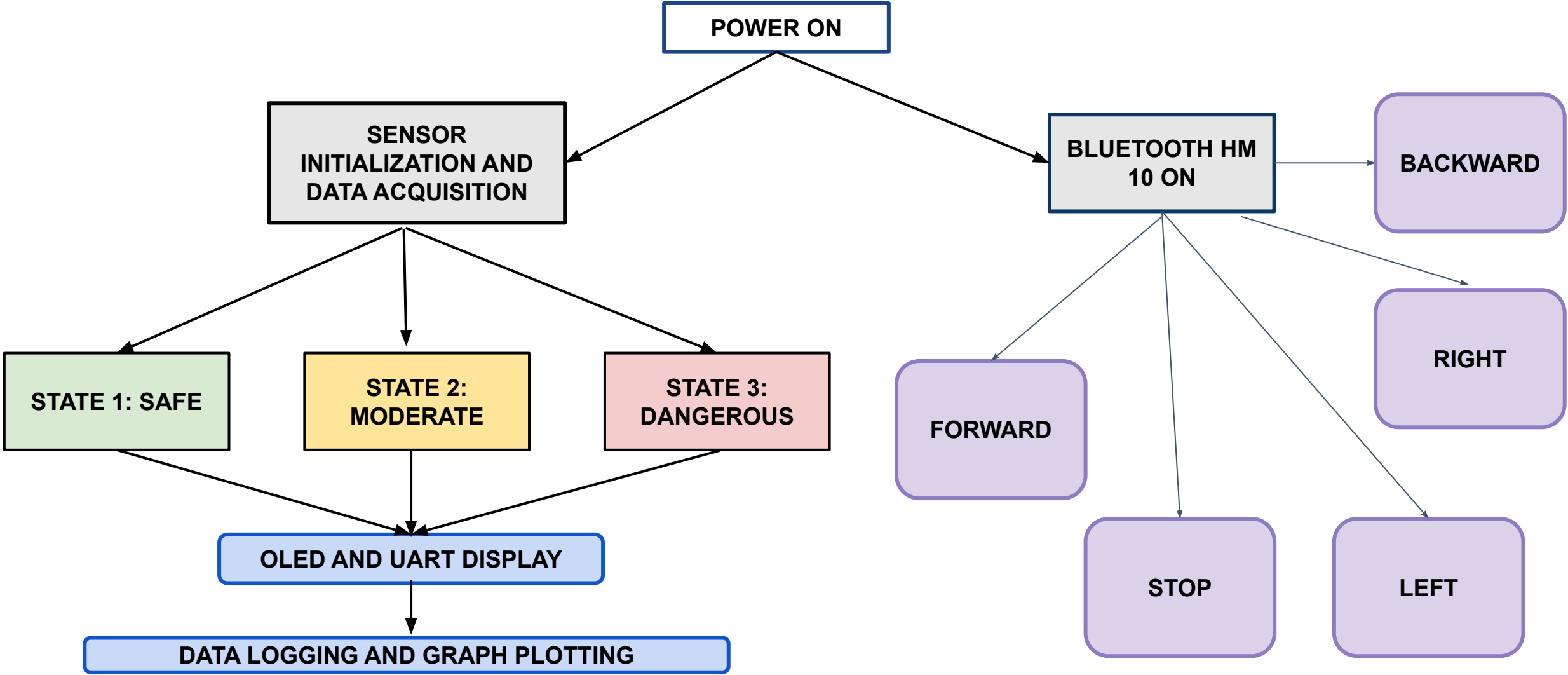
Be Boulder.

05-01-2023

Block Diagram



Data Flow Diagram





Key Learnings

- Communication Protocols:
 - I2C
 - SPI
 - UART
- State machine Implementation
- Firmware Development and Integration
- Unit Testing & Integration Testing
- Hardware Design & PCB Designing
- SD Card Configuration over SPI
- Hardware Configuration via Bluetooth



THANK YOU!

