HO CHI MINH CITY UNIVERSITY OF TECHNOLOGY

Faculty of Electronics and Electrical Engineering

Lab Report

EMBEDDED SYSTEM

Group: 15   *Class: TT01*

Digital Filters with MATLAB

Instructor:
Bùi Quốc Bảo

HO CHI MINH CITY UNIVERSITY OF TECHNOLOGY

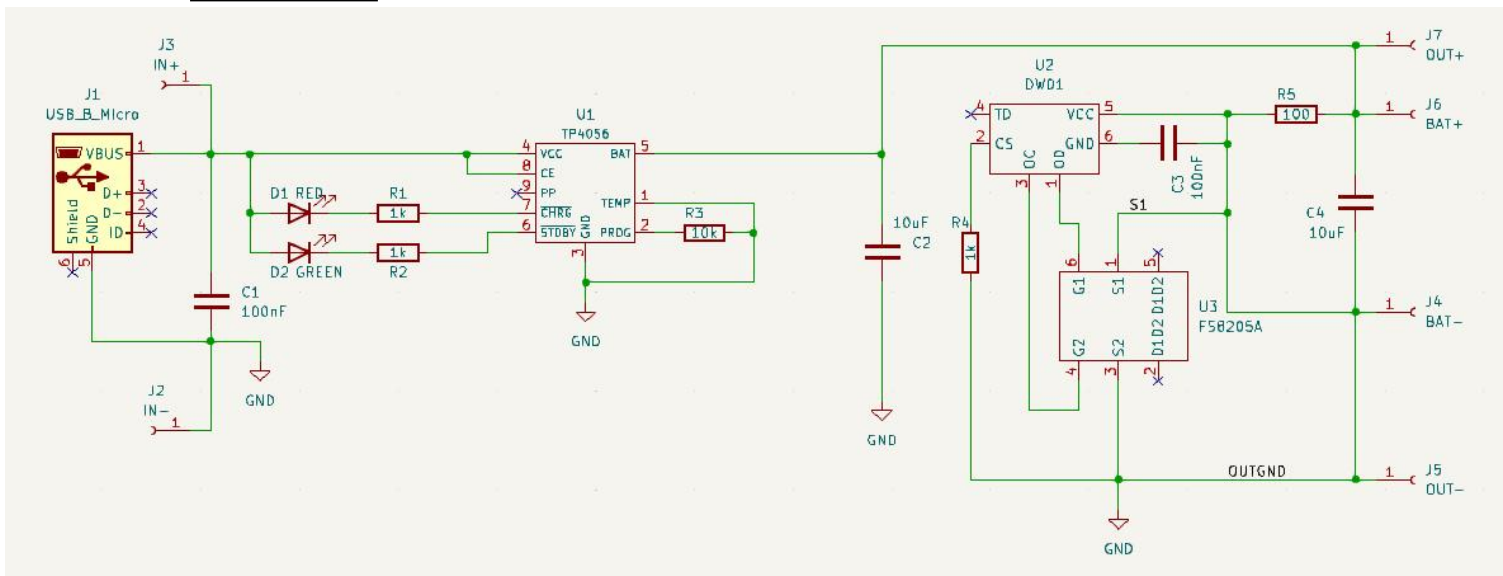| Student's names	Student's IDs
Bùi Trung Kiên	2151106
Trần Văn Sỹ	2151251
Nguyễn Thế Khang Hi	2151070

Academic Year
2023 - 2024

Block Diagram:

Hardware Selection:
- TP4056 chip
- Battery case for 18650 Lithium Battery
- Plastic cover for the charger

Schematic:

Schematic Explanation:
- TP4056 is the main chip responsible for the charging of the battery, powered by 5V input voltage, supplying charging voltage at 4V and 1A current.
- DW01A is a battery protection IC,responsible for protecting the battery from overcharge
- There is 2 main way of supplying power, either using the 5V USB or using the IN+ and IN- terminals
- RED LED to show if the battery is charging
- GREEN LED to show if the battery is fully charged