

[24V IN] [Protection] [Power Tree]

[ESP32 DEV KIT]
| I2C
| SPI
| GPIO
| UART

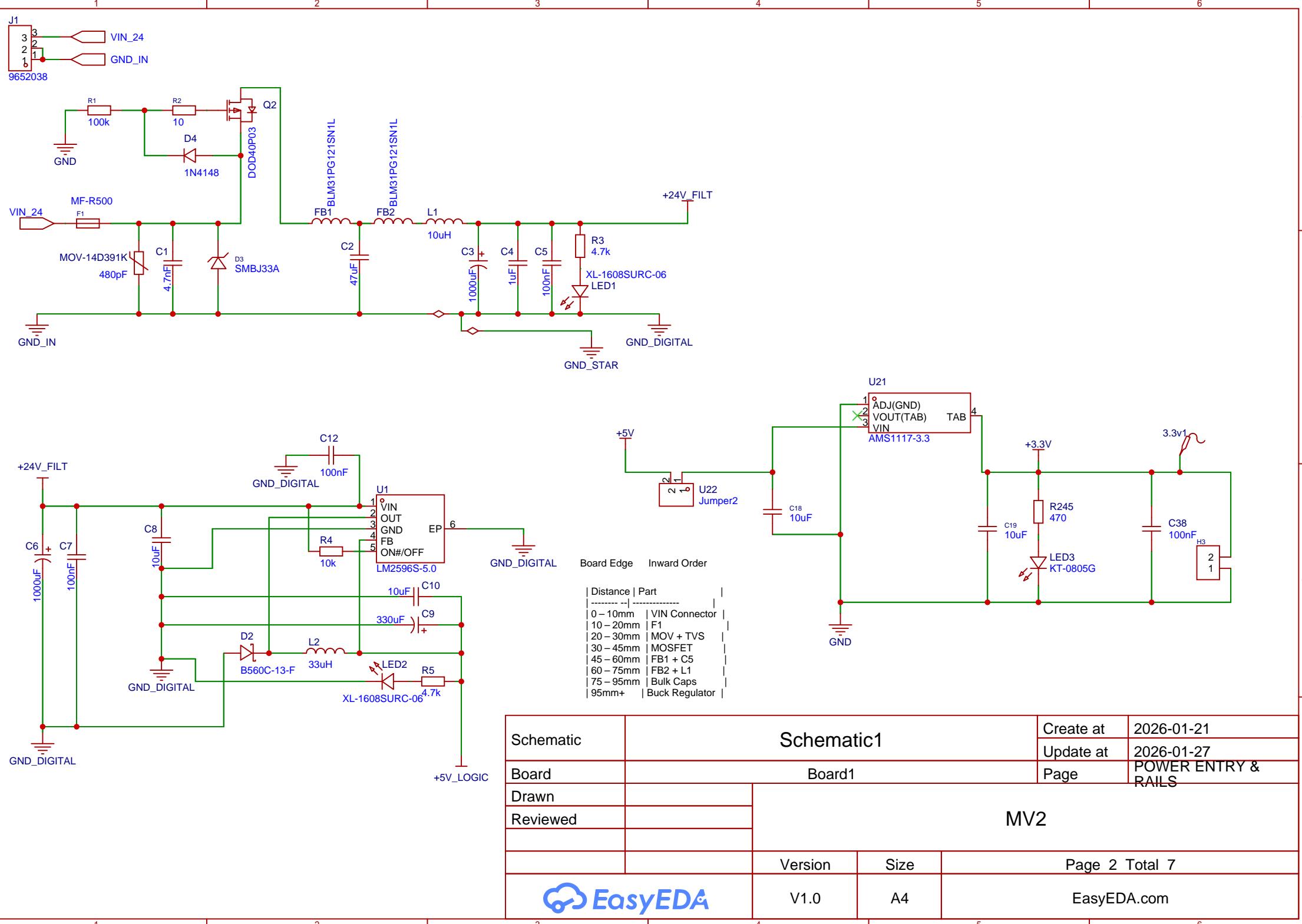
[CARD EDGE]

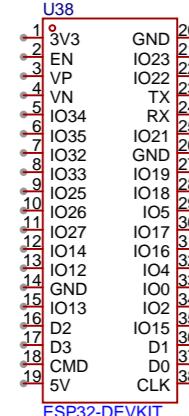
[PCB-B]
Motors
Sensors
Relays

| Setting | Value |
|-----------|-----------------------|
| Layers | 4 |
| Thickness | 1.6mm |
| Copper | 2oz outer / 1oz inner |
| Finish | ENIG |



| | | | | |
|--|------------|------|----------------|-----------------|
| Schematic | Schematic1 | | Create at | 2026-01-21 |
| | | | Update at | 2026-01-23 |
| Board | Board1 | | Page | SYSTEM OVERVIEW |
| Drawn | | | | |
| Reviewed | | | MV2 | |
| | | | Version | Size |
| | | | Page 1 Total 7 | |
|  | | V1.0 | A4 | EasyEDA.com |





Legend:

- SR_DATA, SR_CLK, SR_LATCH, MOTOR_EN
- PCB-B ID REGISTER (74HC165)
- PCB_ID_DATA, PCB_ID_LATCH
- FEEDBACK SYSTEM
- SPI_CLK, SPI_MOSI, SPI_MISO
- MCP3208_CS

2-PIN MOTORS (COMPARATOR - LM393)

FB_ODD, FB_EVEN

FEEDBACK MODE CONTROL

FB_MODE_SEL

SENSOR INPUT

SENSOR_DATA

OLED DISPLAY (I2C)

I2C_SDA, I2C_SCL

USER INTERFACE

BUZZER, RGB_PWM

MODE SWITCHES

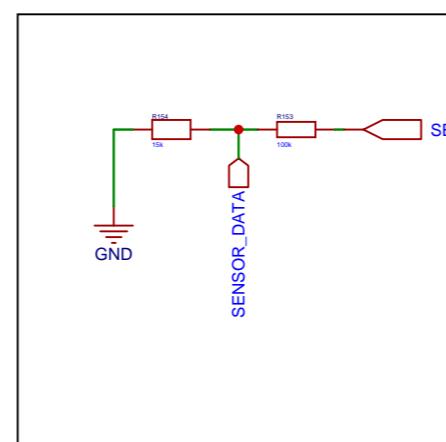
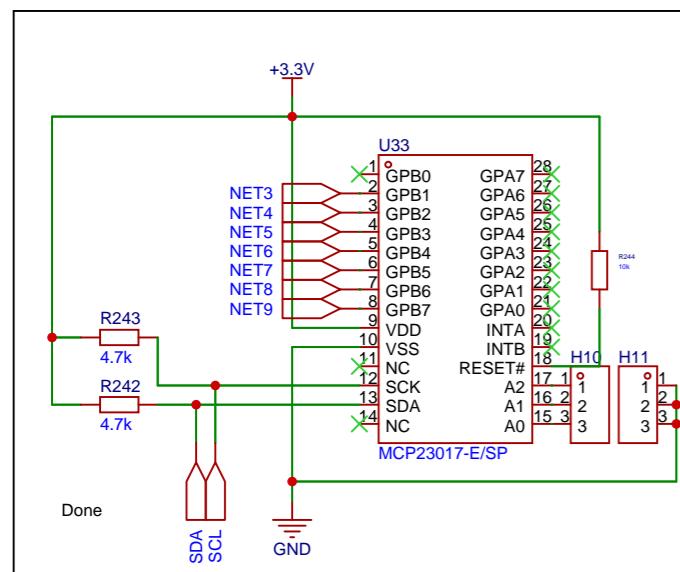
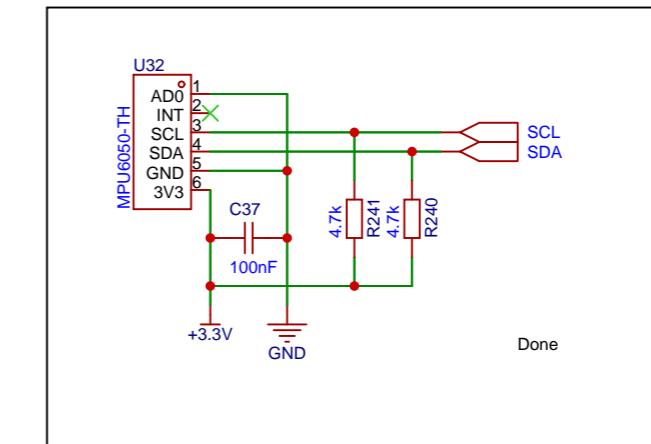
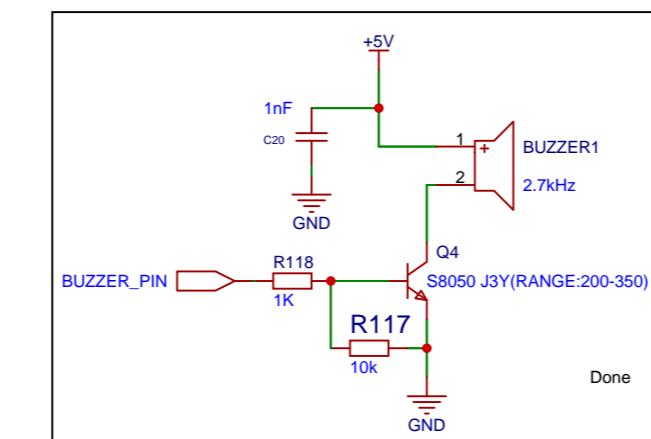
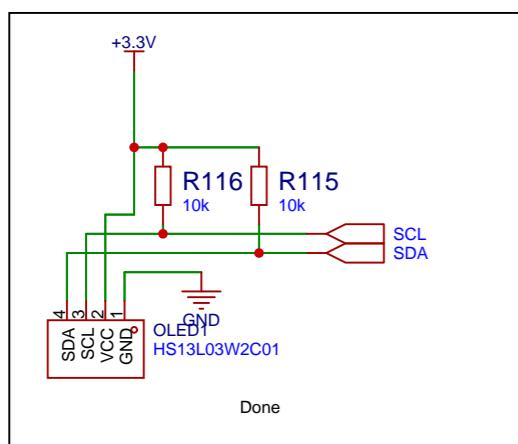
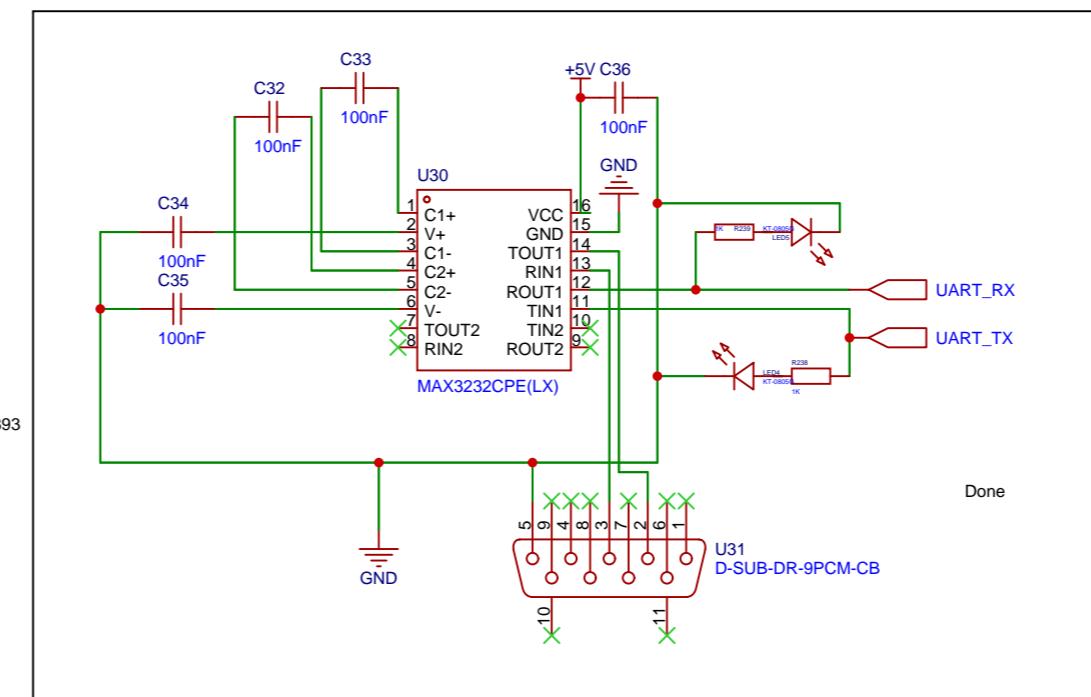
MODE_SW, FUNC_SW

TEMPERATURE / AUX

TEMP_SENSE

RELAY / FAN CONTROL

FAN_CTRL, FRIDGE_CTRL



| | | | | |
|-----------|------------|--|-------------|-------------------------|
| Schematic | Schematic1 | | Create at | 2026-01-21 |
| Board | Board1 | | Update at | 2026-01-27 |
| Drawn | | | Page | ESP32 DEV KIT INTERFACE |
| Reviewed | | | | |
| | | | Version | A4 |
| | | | Size | Page 3 Total 7 |
| | | | EasyEDA.com | |

A

A

B

B

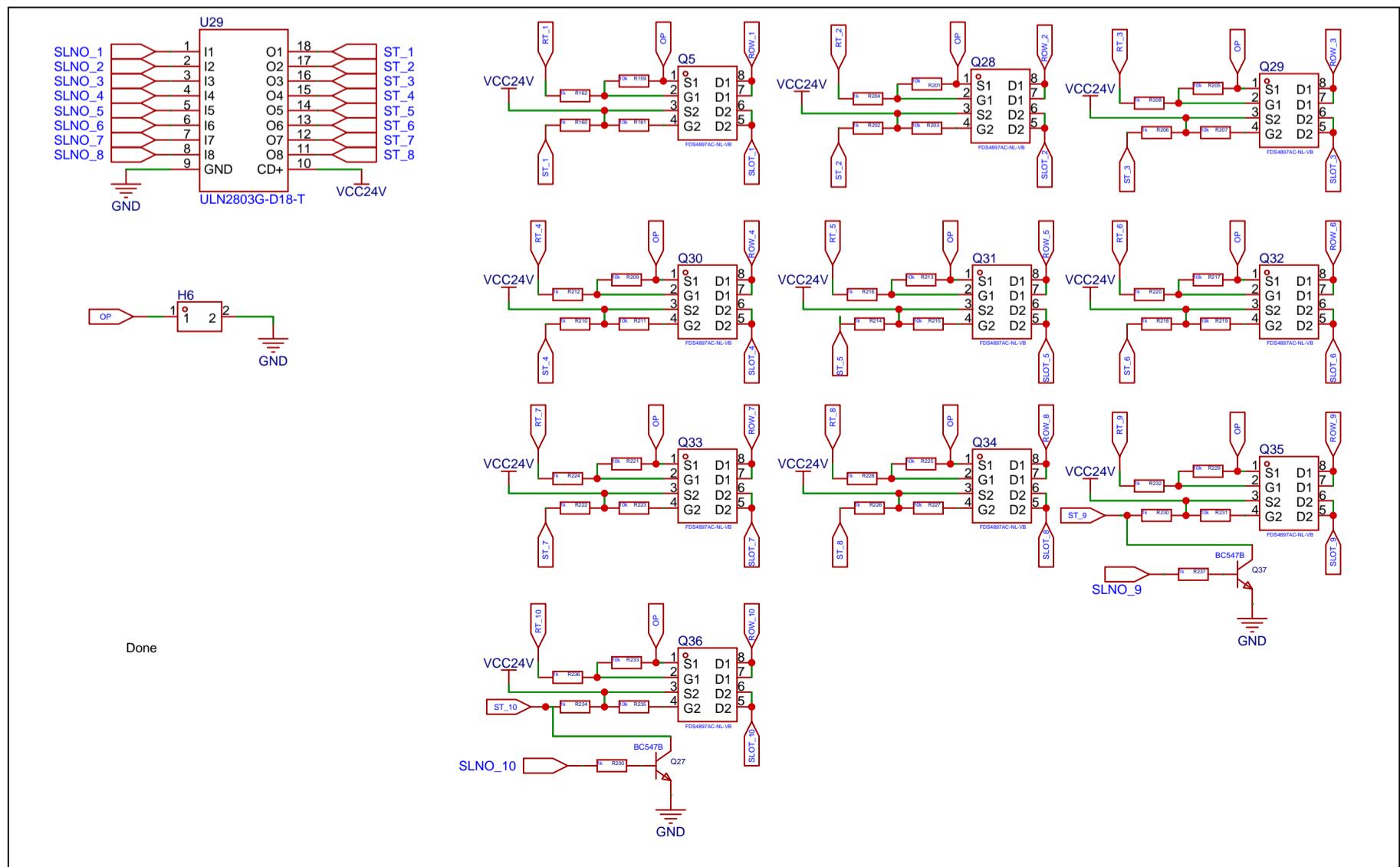
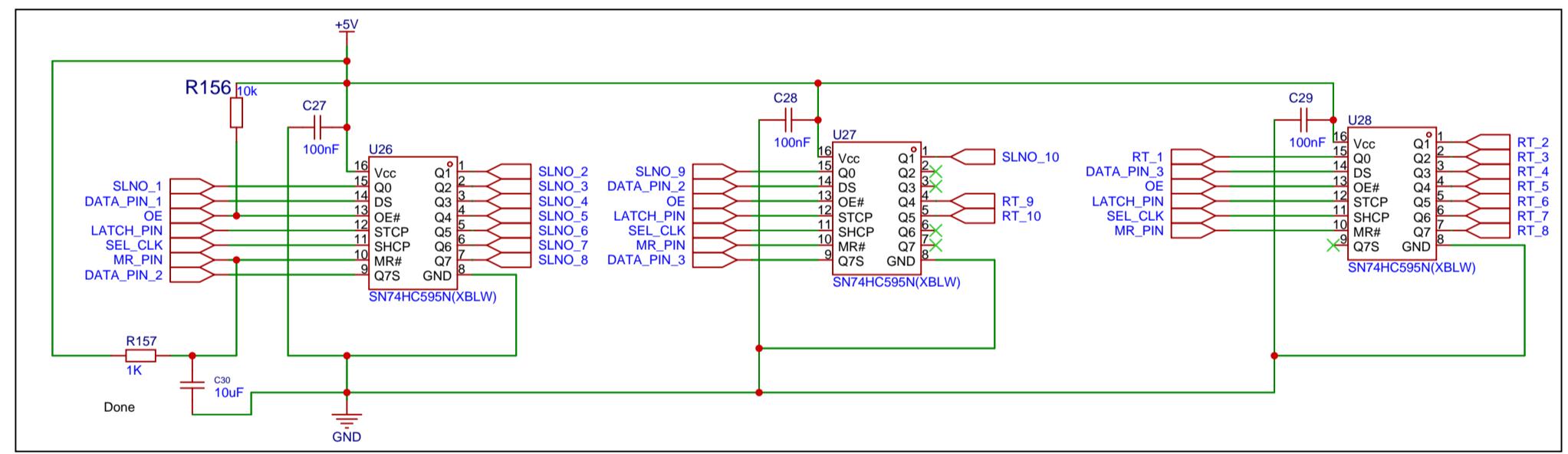
C

C

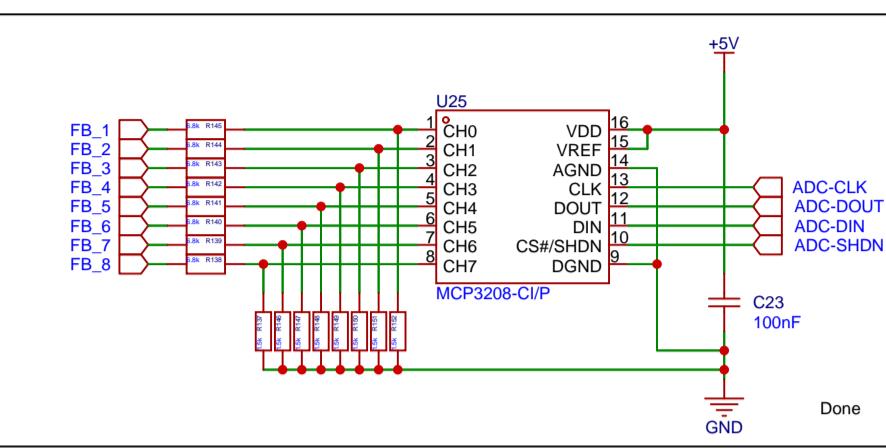
D

D

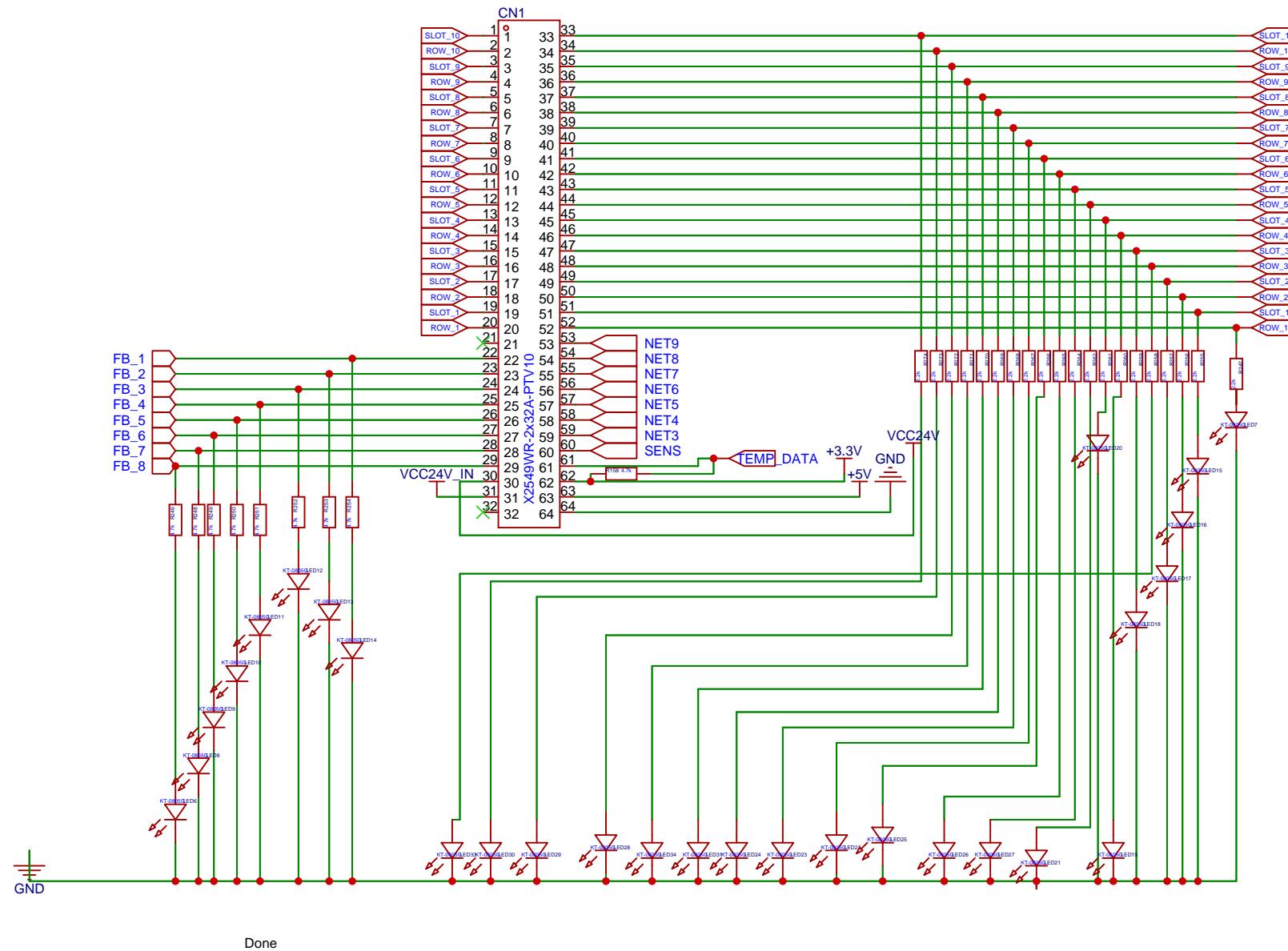
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|--|------------|------|---------|-------------|---------------------------|
| Schematic | Schematic1 | | | Create at | 2026-01-20 |
| Board | Board1 | | | Update at | 2026-01-21 |
| Drawn | | | | Page | PCB-B TYPE IDENTIFICATION |
| Reviewed | | | | MV2 | |
| | | | Version | Size | Page 4 Total 7 |
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| | | | | |
|---|------------|---------|-----------|------------------------|
| Schematic | Schematic1 | | Create at | 2026-01-21 |
| | | | Update at | 2026-01-27 |
| Board | Board1 | | Page | MOTOR CONTROL LOGIC |
| Drawn | | MV2 | | |
| Reviewed | | | | |
| | | Version | Size | Page 5 Total 7 |
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| | | | | |
|-----------|-----------------|------|----------------|------------|
| Schematic | Schematic1 | | Create at | 2026-01-21 |
| Board | Board1 | | Update at | 2026-01-27 |
| Drawn | Page | | | |
| Reviewed | FEEDBACK SYSTEM | | | |
| | MV2 | | | |
| | Version | Size | Page 6 Total 7 | |
| | V1.0 | A4 | EasyEDA.com | |



Done

| | | | |
|-----------|------------|-----------|---------------------|
| Schematic | Schematic1 | Create at | 2026-01-21 |
| | | Update at | 2026-01-27 |
| Board | Board1 | Page | CARD EDGE CONNECTOR |

MV2