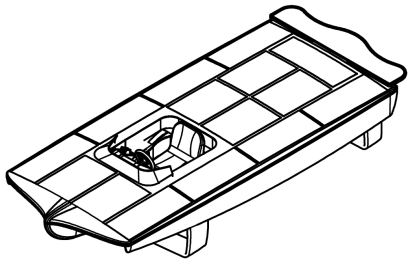


Panels

VCC_PV
GND
VCC_MCU
GND_MCU
+3.3V
GND
SCL
SDA
PV_SCL
PV_SDA

File: panels.kicad_sch

Sensors

+12V
GND
CAN_L
CAN_H
CAN_L
CAN_H

File: sensors.kicad_sch

+48V
GND
GND
VCC_PV
Batt+
Batt−
PV−
PV+
MPPT1

Central Control Unit

+3.3V
+12V
GND
PV_I2C_SDA
PV_I2C_SCL
PV_SDA
PV_SCL
MDM_SET
ADM_SET
ADM_Kill
CAN_L
CAN_H
RED_LED
GREEN_LED
ORANGE_LED

File: CCU.kicad_sch

+48V is connected to cells via EXTERNAL SWITCH

BAT1

300A MAX

SW1A
SW_DPST_x2

+12V
Batt_High_Voltage
GND
+12V
+48V
GND
EXT_SWITCH1
EXT_SWITCH2
CAN_H
CAN_L
CAN_L
CAN_H

Adapter1

+12V
GND
+12
GND
4_pin_power
4_pin_power

User Interface

GND
GND
NMEA2000
Radar
4_pin_power
9_pin_sonar
NMEA
Ethernet
4_pin_power
RED_LED
ORANGE_LED
GREEN_LED
RED_LED
ORANGE_LED
GRREEN_LED

Sonar1

9_pin

File: User_Interface.kicad_sch

CerboGx

+12V
GND
Ve.Direct
Ethernet
+12V
GND
Ve.Direct
Ethernet

File: CerboGx.kicad_sch

Steering throttle actuators

+12V
GND
CAN_L
CAN_H
CAN_L
CAN_H

File: steering_throttle_actuators.kicad_sch

Main motor

GND
+48V
GND
+48V
VBatt
Ve.Direct
CAN_L
CAN_H
NMEA
+12V
Ve.Direct
CAN_L
CAN_H
NMEA

File: Main_Motor.kicad_sch

Switching system

Batt_High_Voltage
+12V
+3.3V
GND
Batt_High_Voltage
+12V
+3.3V
GND
+48V
ADM_Kill
ADM_SET
MDM_SET
+48V
ADM_Kill
ADM_SET
MDM_SET

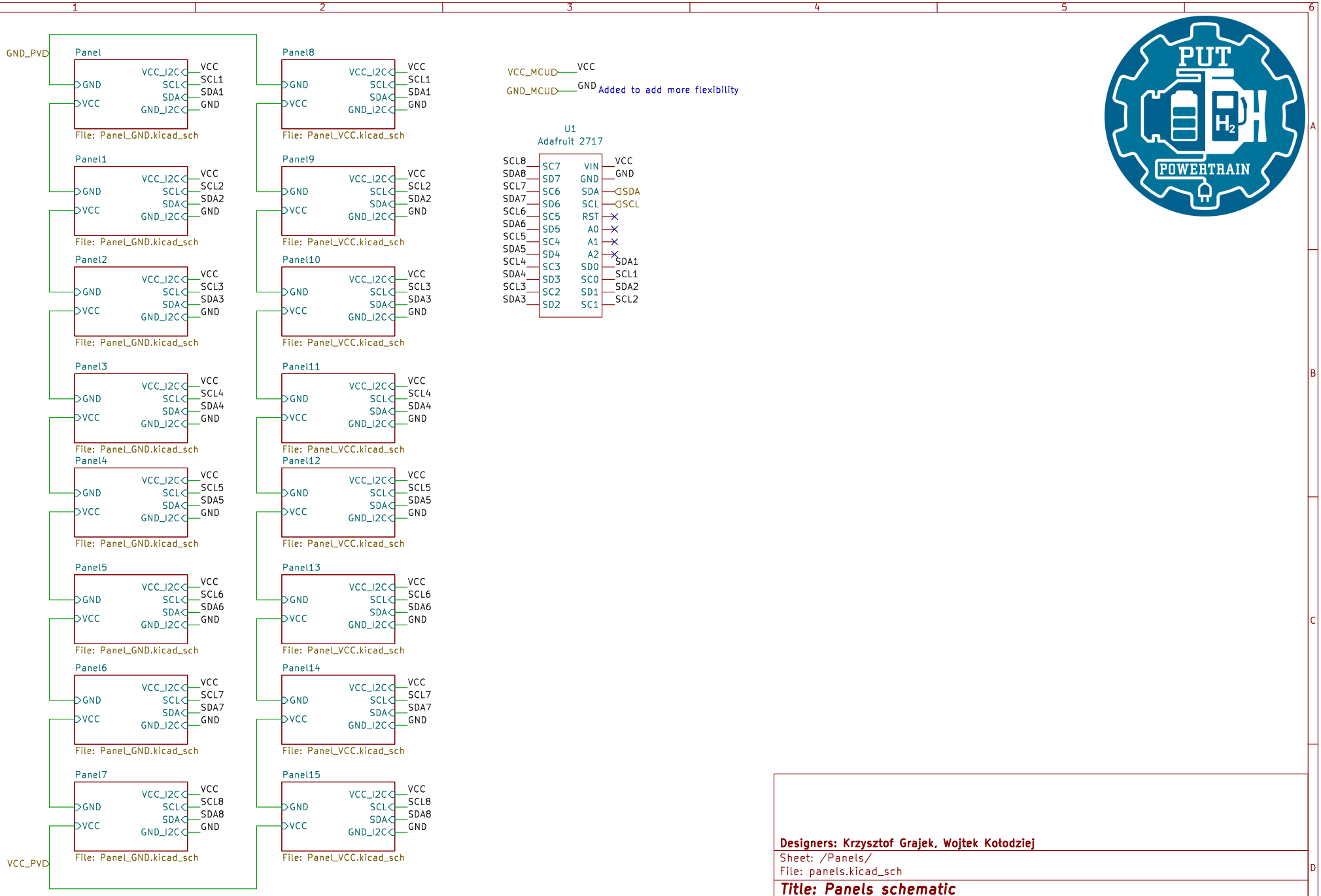
File: switching_system.kicad_sch

Designers: Krzysztof Grajek, Wojtek Kołodziej

Sheet: /
File: main.kicad_sch

Title: POWERBoat Schematic

Size: A4	Date: 2025-01-09	**Rev:**
KiCad E.D.A. 8.0.3		Id: 1/36

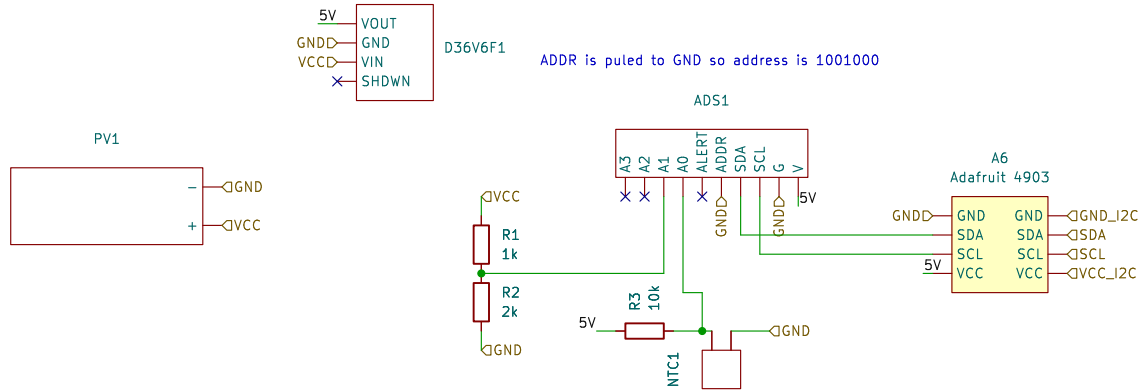


Designers: Krzysztof Grajek, Wojtek Kołodziej

Sheet: /Panels/
File: panels.kicad_sch

Title: Panels schematic

Size: A4	Date: 2025-01-09	**Rev:**
KiCad E.D.A. 8.0.3		Id: 2/36

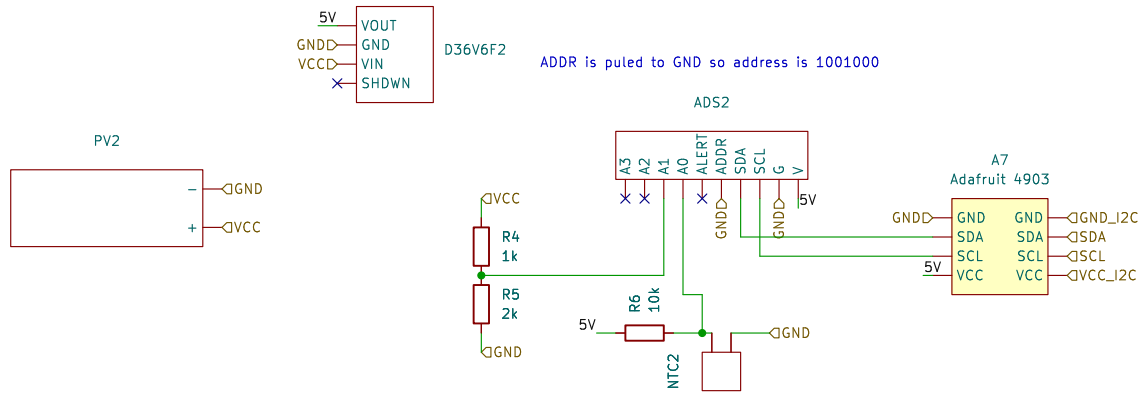


Designers: Krzysztof Grajek, Wojtek Kołodziej

Sheet: /Panels/Panel/
File: Panel_GND.kicad_sch

Title:

Size: A4	Date: 2025-01-09	**Rev:**
KiCad E.D.A. 8.0.3		Id: 3/36

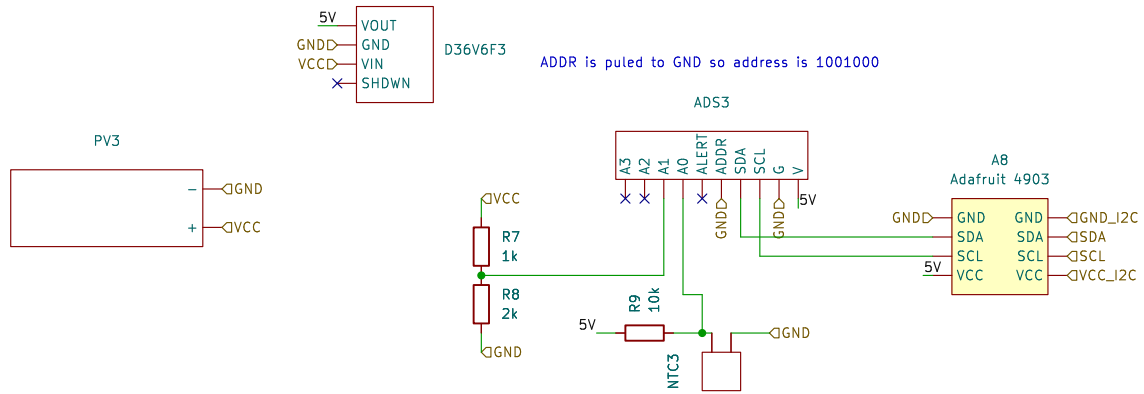


Designers: Krzysztof Grajek, Wojtek Kołodziej

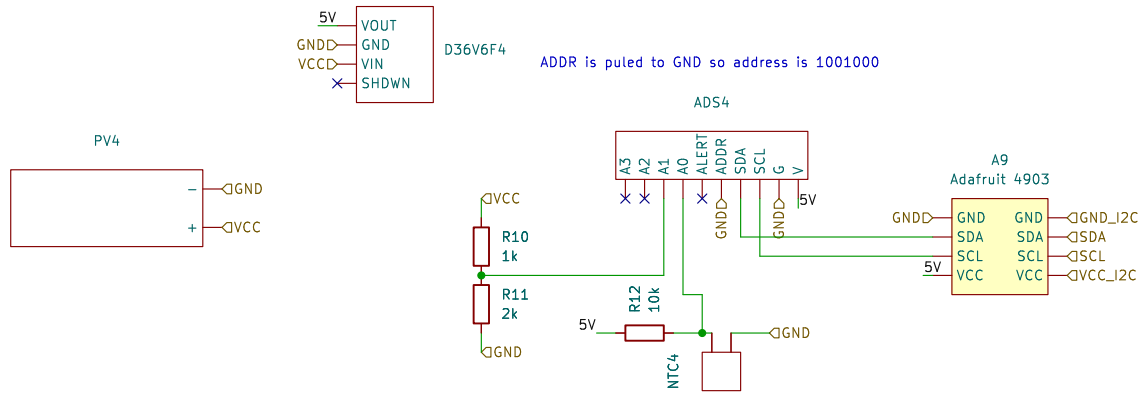
Sheet: /Panels/Panel1/
File: Panel_GND.kicad_sch

Title:

Size: A4	Date: 2025-01-09	**Rev:**
KiCad E.D.A. 8.0.3		Id: 4/36



Designers: Krzysztof Grajek, Wojtek Kołodziej		
Sheet: /Panels/Panel2/		
File: Panel_GND.kicad_sch		
Title:		
Size: A4	Date: 2025-01-09	**Rev:**
KiCad E.D.A. 8.0.3		Id: 5/36

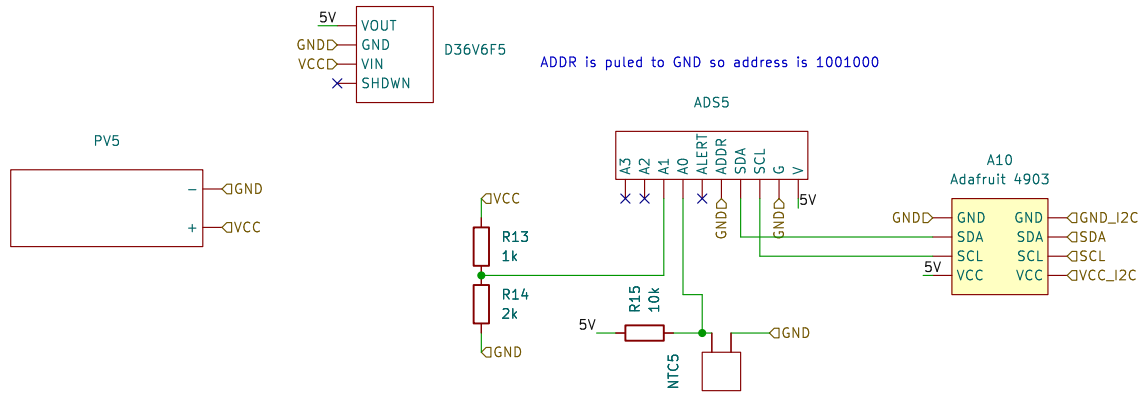


Designers: Krzysztof Grajek, Wojtek Kołodziej

Sheet: /Panels/Panel3/
File: Panel_GND.kicad_sch

Title:

Size: A4	Date: 2025-01-09	**Rev:**
KiCad E.D.A. 8.0.3		Id: 6/36

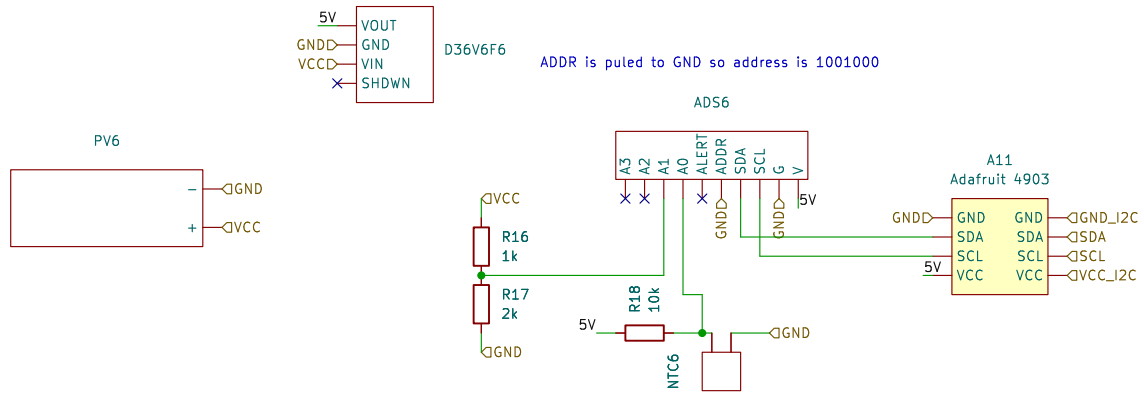


Designers: Krzysztof Grajek, Wojtek Kołodziej

Sheet: /Panels/Panel4/
File: Panel_GND.kicad_sch

Title:

Size: A4	Date: 2025-01-09	**Rev:**
KiCad E.D.A. 8.0.3		Id: 7/36

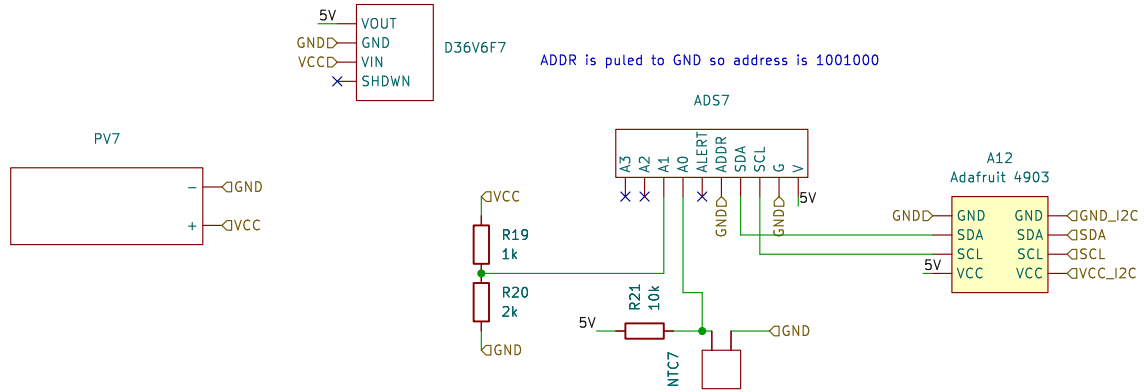


Designers: Krzysztof Grajek, Wojtek Kołodziej

Sheet: /Panels/Panel5/
File: Panel_GND.kicad_sch

Title:

Size: A4	Date: 2025-01-09	**Rev:**
KiCad E.D.A. 8.0.3		Id: 8/36

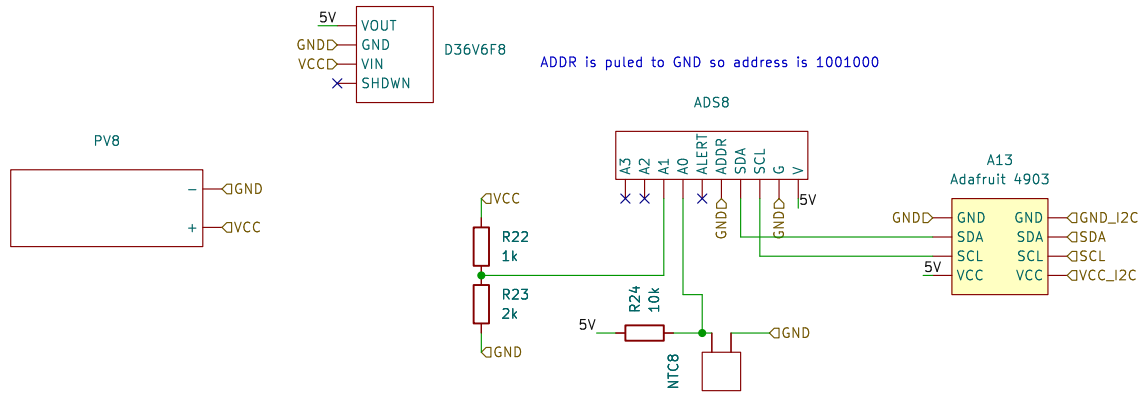


Designers: Krzysztof Grajek, Wojtek Kołodziej

Sheet: /Panels/Panel6/
File: Panel_GND.kicad_sch

Title:

Size: A4	Date: 2025-01-09	**Rev:**
KiCad E.D.A. 8.0.3		Id: 9/36

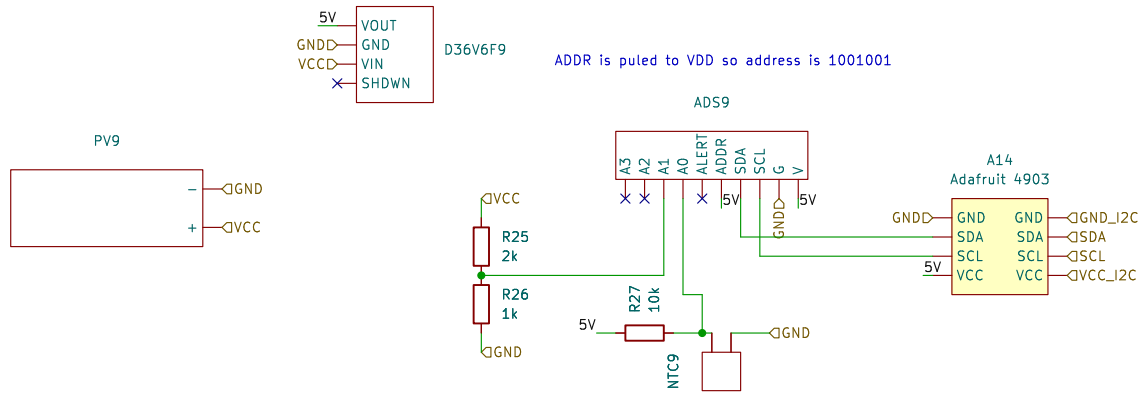


Designers: Krzysztof Grajek, Wojtek Kołodziej

Sheet: /Panels/Panel7/
File: Panel_GND.kicad_sch

Title:

Size: A4	Date: 2025-01-09	**Rev:**
KiCad E.D.A. 8.0.3		Id: 10/36

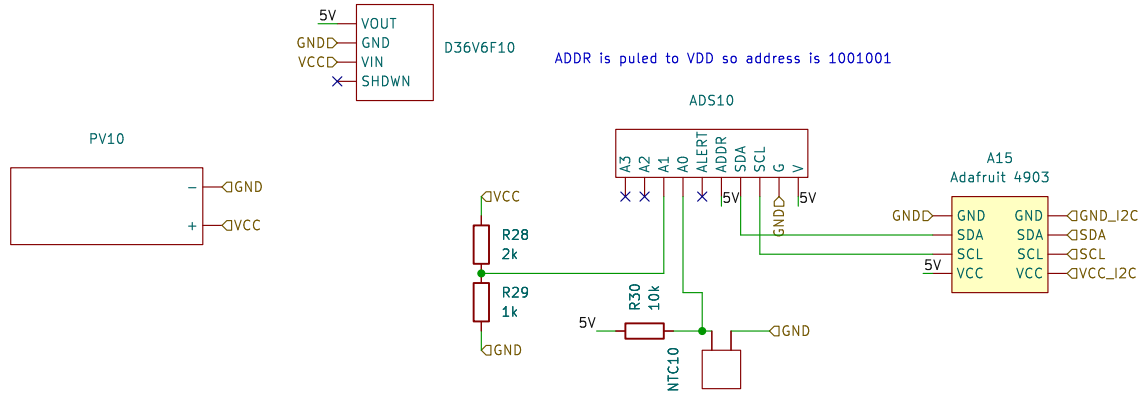


Designers: Krzysztof Grajek, Wojtek Kołodziej

Sheet: /Panels/Panel8/
File: Panel_VCC.kicad_sch

Title:

Size: A4	Date: 2025-01-09	**Rev:**
KiCad E.D.A. 8.0.3		Id: 11/36

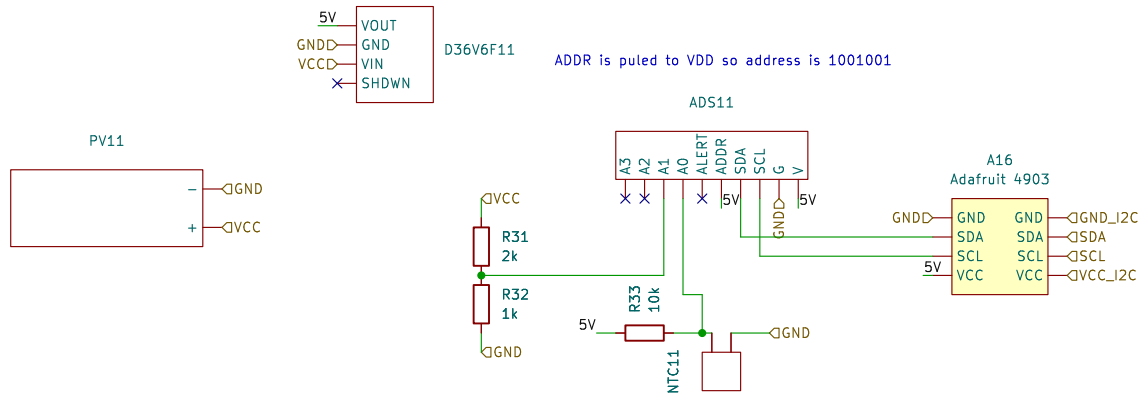


Designers: Krzysztof Grajek, Wojtek Kołodziej

Sheet: /Panels/Panel9/
File: Panel_VCC.kicad_sch

Title:

Size: A4	Date: 2025-01-09	**Rev:**
KiCad E.D.A. 8.0.3		Id: 12/36

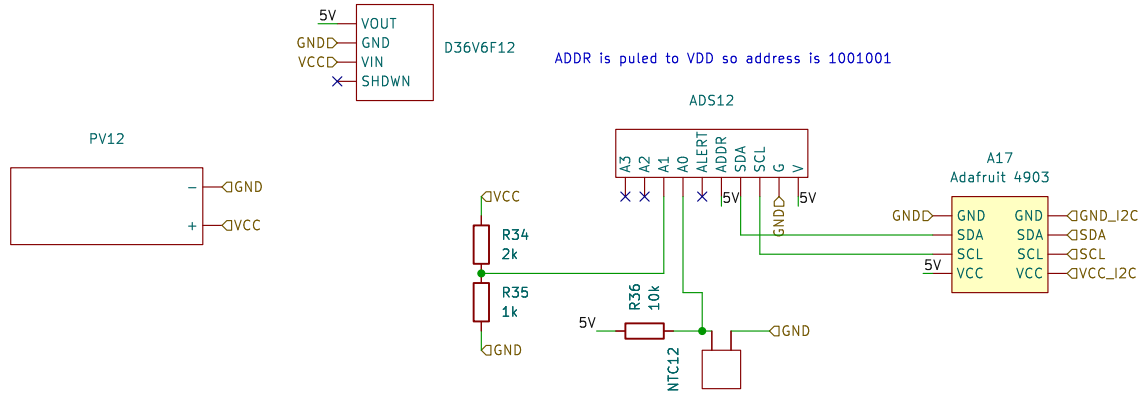


Designers: Krzysztof Grajek, Wojtek Kołodziej

Sheet: /Panels/Panel10/
File: Panel_VCC.kicad_sch

Title:

Size: A4	Date: 2025-01-09	**Rev:**
KiCad E.D.A. 8.0.3		Id: 13/36

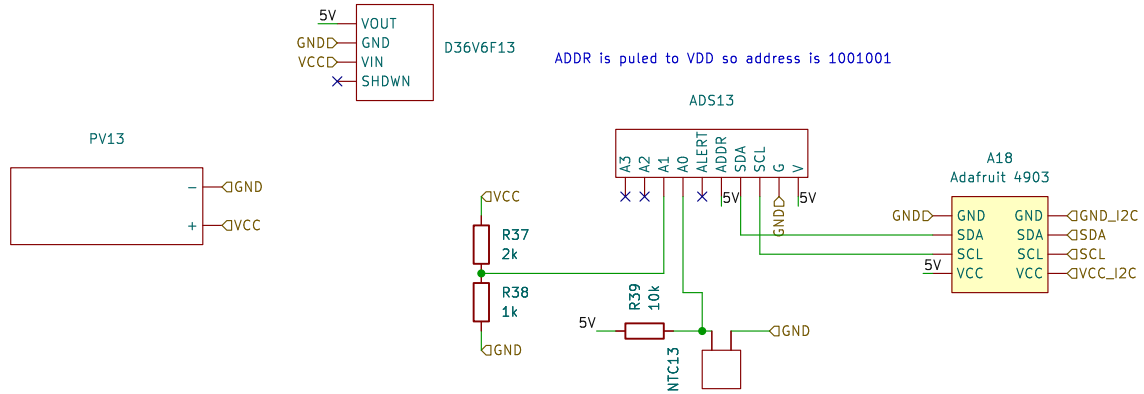


Designers: Krzysztof Grajek, Wojtek Kołodziej

Sheet: /Panels/Panel11/
File: Panel_VCC.kicad_sch

Title:

Size: A4	Date: 2025-01-09	**Rev:**
KiCad E.D.A. 8.0.3		Id: 14/36

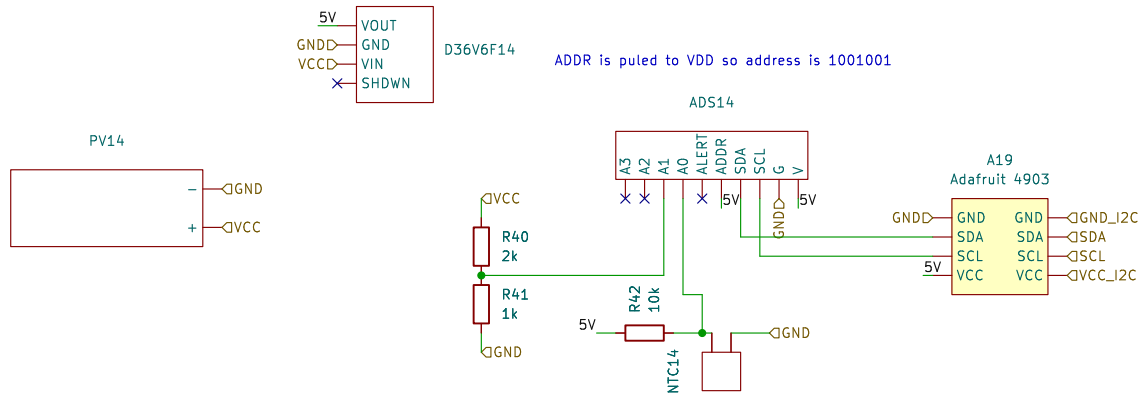


Designers: Krzysztof Grajek, Wojtek Kołodziej

Sheet: /Panels/Panel12/
File: Panel_VCC.kicad_sch

Title:

Size: A4	Date: 2025-01-09	**Rev:**
KiCad E.D.A. 8.0.3		Id: 15/36

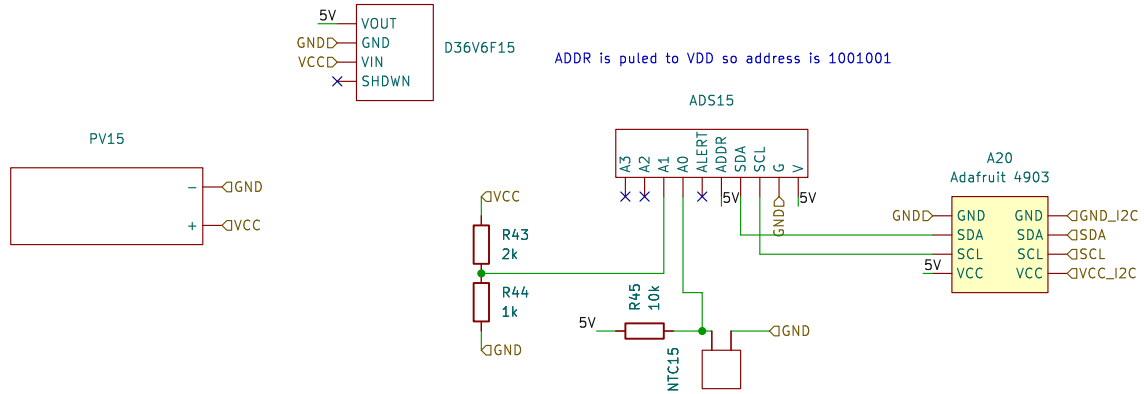


Designers: Krzysztof Grajek, Wojtek Kołodziej

Sheet: /Panels/Panel13/
File: Panel_VCC.kicad_sch

Title:

Size: A4	Date: 2025-01-09	**Rev:**
KiCad E.D.A. 8.0.3		Id: 16/36

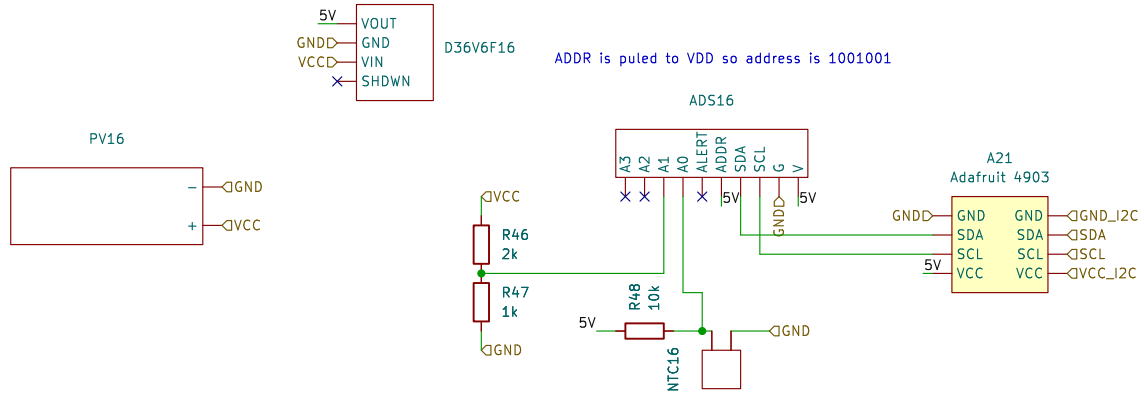


Designers: Krzysztof Grajek, Wojtek Kołodziej

Sheet: /Panels/Panel14/
File: Panel_VCC.kicad_sch

Title:

Size: A4	Date: 2025-01-09	**Rev:**
KiCad E.D.A. 8.0.3		Id: 17/36

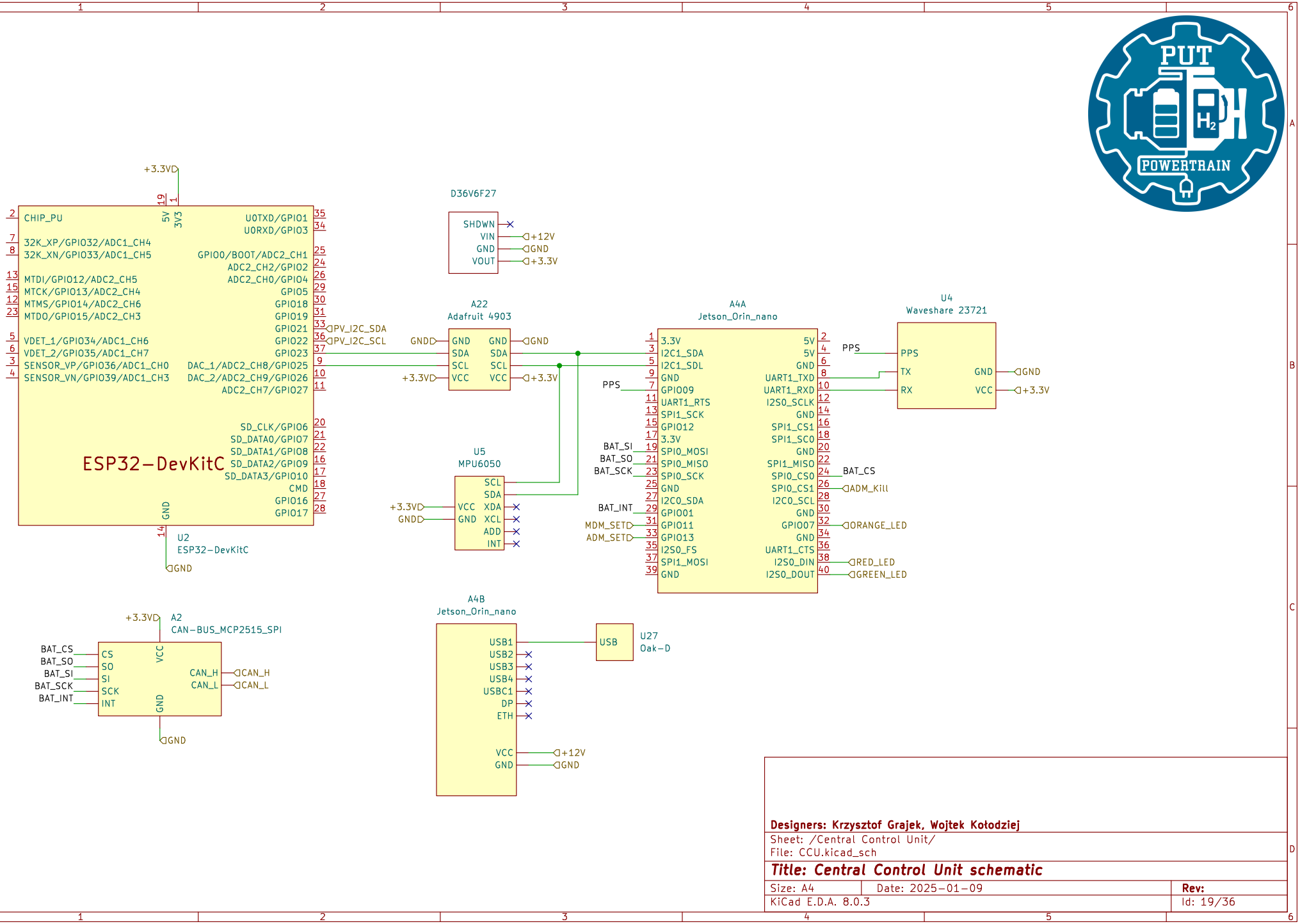


Designers: Krzysztof Grajek, Wojtek Kołodziej

Sheet: /Panels/Panel15/
File: Panel_VCC.kicad_sch

Title:

Size: A4	Date: 2025-01-09	**Rev:**
KiCad E.D.A. 8.0.3		Id: 18/36

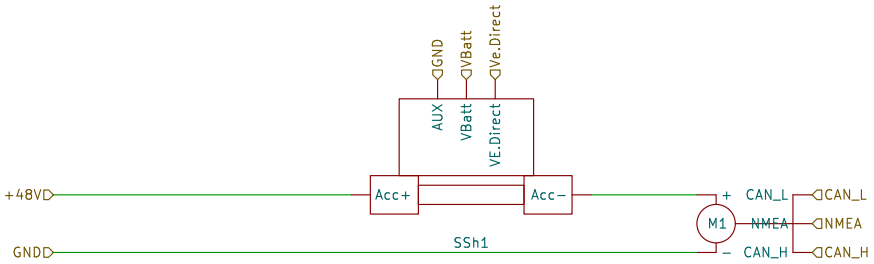


Designers: Krzysztof Grajek, Wojtek Kołodziej

Sheet: /Central Control Unit/
File: CCU.kicad_sch

Title: Central Control Unit schematic

Size: A4	Date: 2025-01-09	**Rev:**
KiCad E.D.A. 8.0.3		Id: 19/36

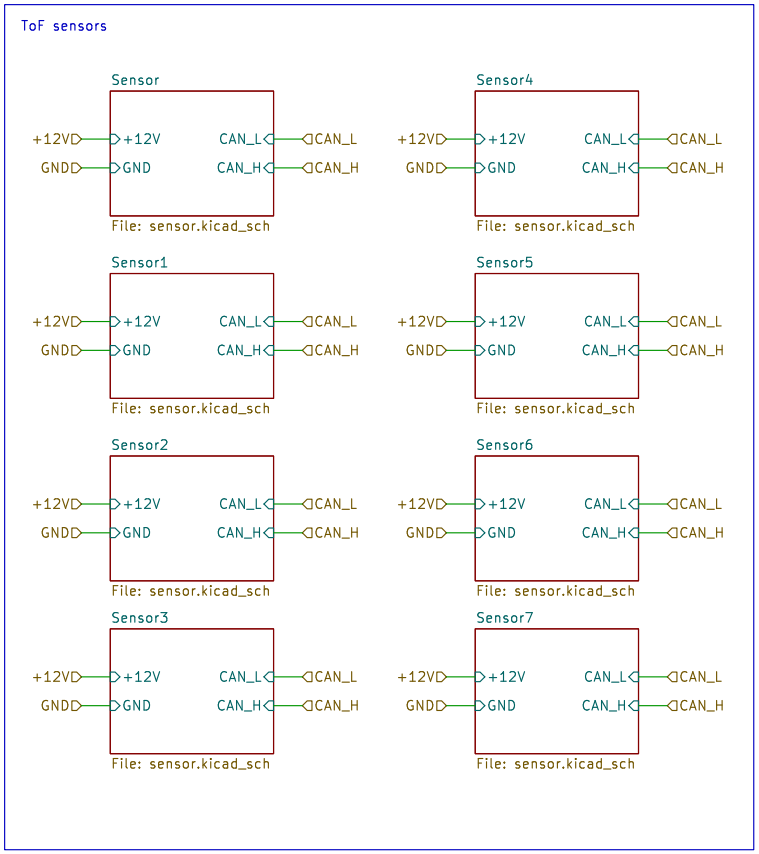


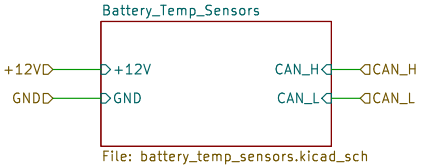
Designers: Krzysztof Grajek, Wojtek Kołodziej

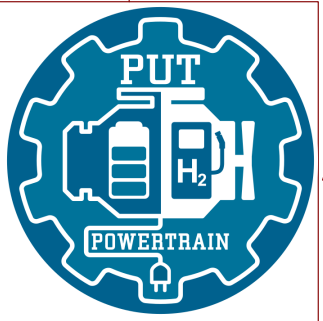
Sheet: /Main motor/
File: Main_Motor.kicad_sch

Title: Main motor schematic

Size: A4	Date: 2025-01-09	**Rev:**
KiCad E.D.A. 8.0.3		Id: 20/36





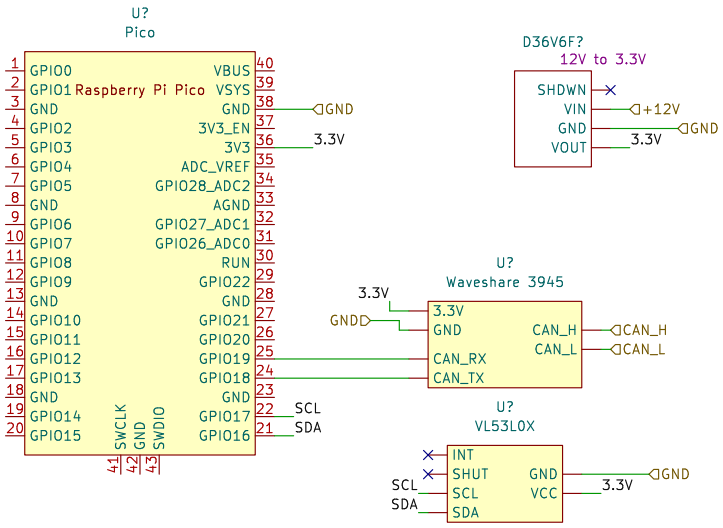


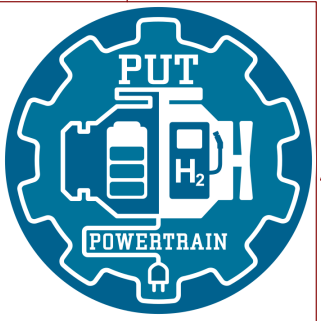
Designers: Krzysztof Grajek, Wojtek Kołodziej

Sheet: /Sensors/
File: sensors.kicad_sch

Title: Sensors schematic

Size: A4	Date: 2025-01-09	**Rev:**
KiCad E.D.A. 8.0.3		Id: 21/36



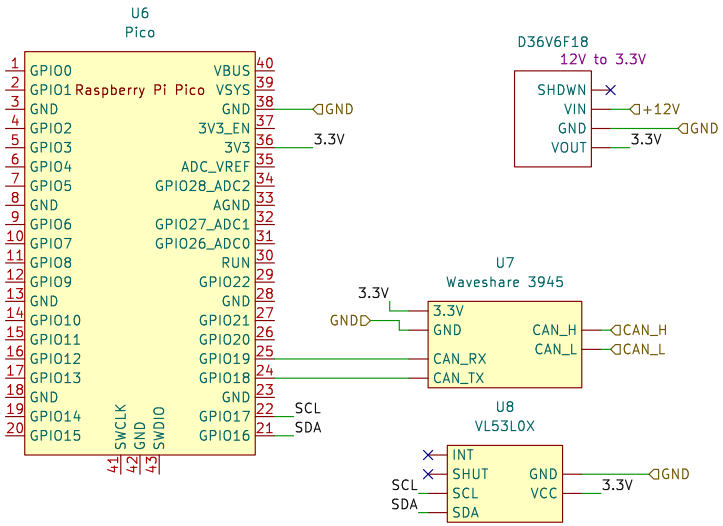


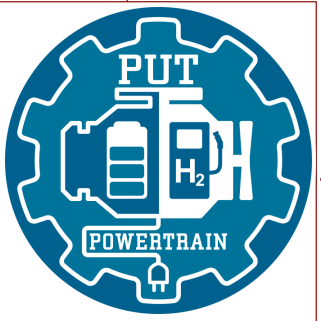
Designers: Krzysztof Grajek, Wojtek Kołodziej

Sheet: /Sensors/Sensor/
File: sensor.kicad_sch

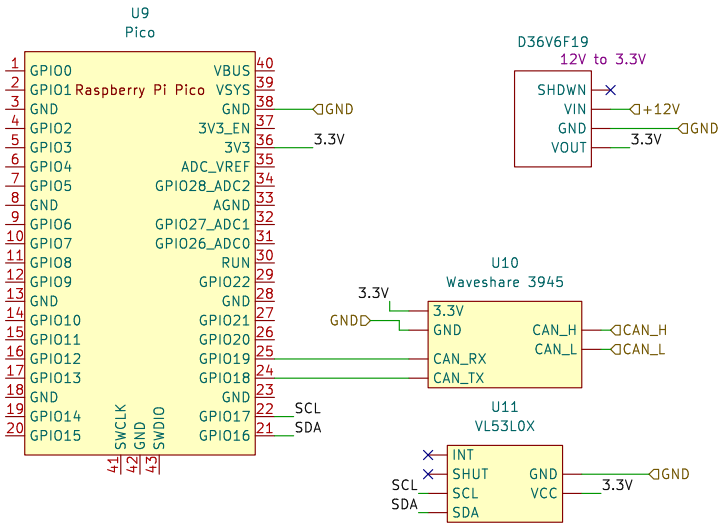
Title:

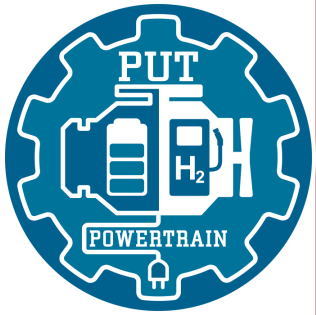
Size: A4	Date: 2025-01-09	**Rev:**
KiCad E.D.A. 8.0.3		Id: 22/36





Designers: Krzysztof Grajek, Wojtek Kołodziej		
Sheet: /Sensors/Sensor1/ File: sensor.kicad_sch		
Title:		
Size: A4	Date: 2025-01-09	**Rev:**
KiCad E.D.A. 8.0.3		Id: 23/36



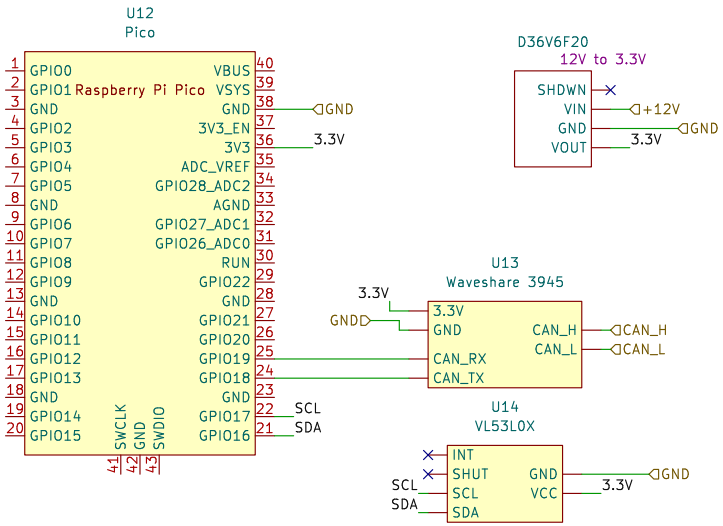


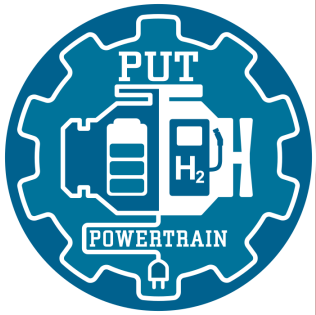
Designers: Krzysztof Grajek, Wojtek Kołodziej

Sheet: /Sensors/Sensor2/
File: sensor.kicad_sch

Title:

Size: A4	Date: 2025-01-09	**Rev:**
KiCad E.D.A. 8.0.3		Id: 24/36



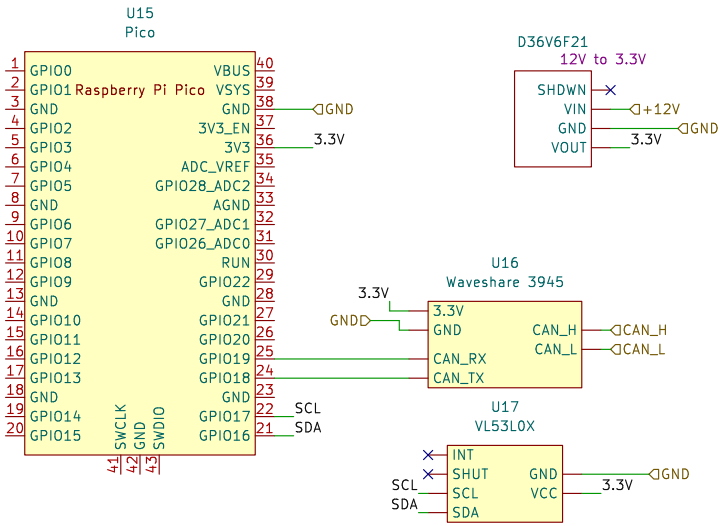


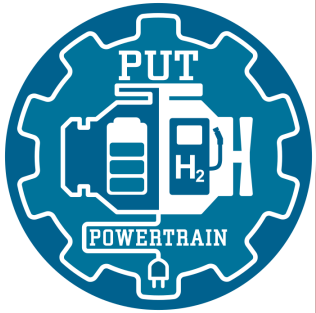
Designers: Krzysztof Grajek, Wojtek Kołodziej

Sheet: /Sensors/Sensor3/
File: sensor.kicad_sch

Title:

Size: A4	Date: 2025-01-09	**Rev:**
KiCad E.D.A. 8.0.3		Id: 25/36



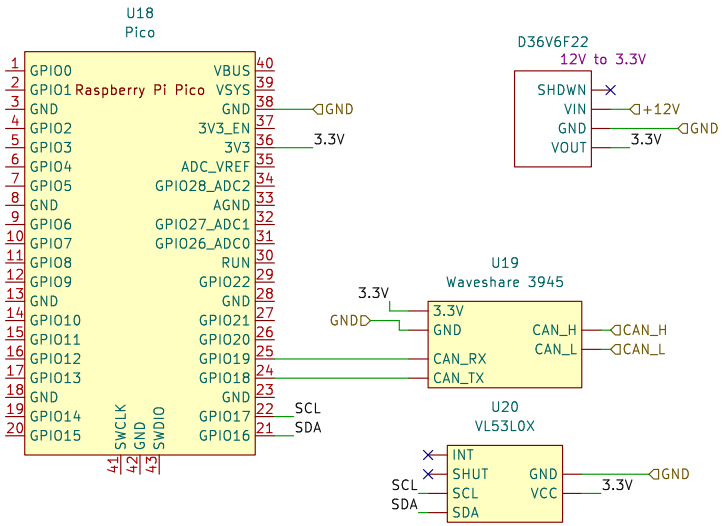


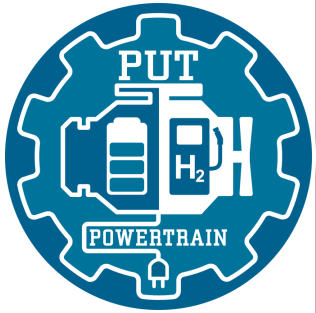
Designers: Krzysztof Grajek, Wojtek Kołodziej

Sheet: /Sensors/Sensor4/
File: sensor.kicad_sch

Title:

Size: A4	Date: 2025-01-09	**Rev:**
KiCad E.D.A. 8.0.3		Id: 26/36





Designers: Krzysztof Grajek, Wojtek Kołodziej

Sheet: /Sensors/Sensor5/
File: sensor.kicad_sch

Title:

Size: A4	Date: 2025-01-09	**Rev:**
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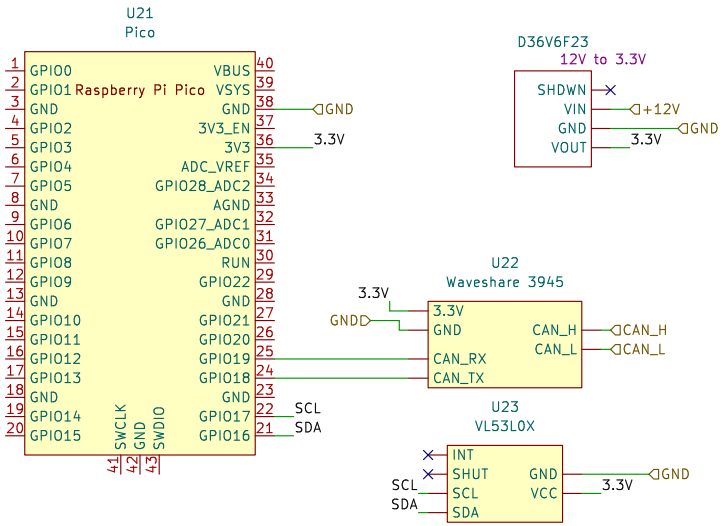
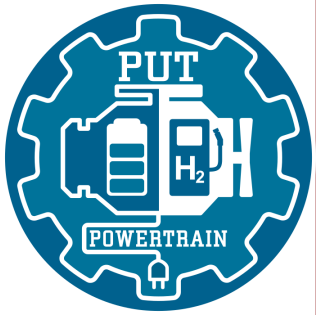


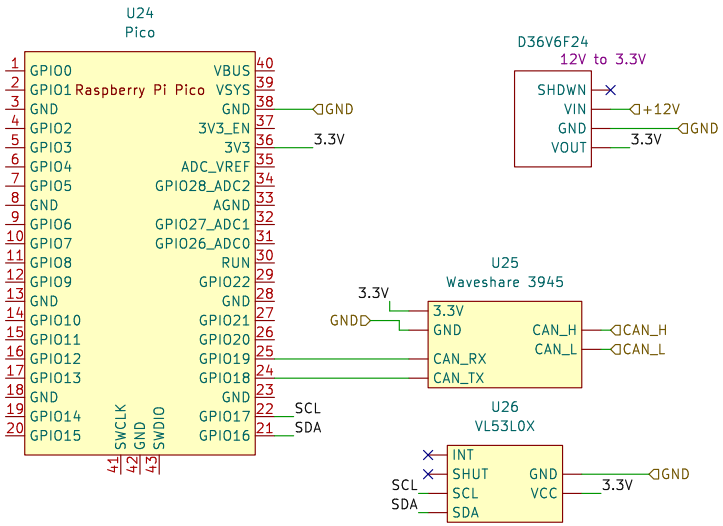


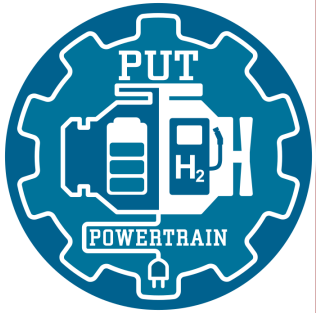
Designers: Krzysztof Grajek, Wojtek Kołodziej

Sheet: /Sensors/Sensor6/
File: sensor.kicad_sch

Title:

Size: A4	Date: 2025-01-09	**Rev:**
KiCad E.D.A. 8.0.3		Id: 28/36





Designers: Krzysztof Grajek, Wojtek Kołodziej

Sheet: /Sensors/Sensor7/
File: sensor.kicad_sch

Title:

Size: A4	Date: 2025-01-09	**Rev:**
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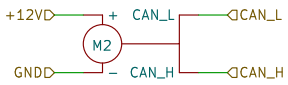
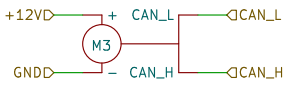
Adjusts the throttle mechanism to regulate the main motor speed



Throttle_Motor

Controls the direction by adjusting the steering rod mechanism



Steering_Rod_Motor

Designers: Krzysztof Grajek, Wojtek Kołodziej

Sheet: /Steering throttle actuators/
File: steering_throttle_actuators.kicad_sch

Title: Steering throttle actuators schematic

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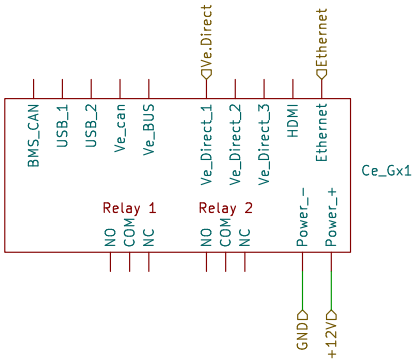

Designers: Krzysztof Grajek, Wojtek Kołodziej

Sheet: /CerboGx/
File: CerboGx.kicad_sch

Title: Cerbo GX schematic

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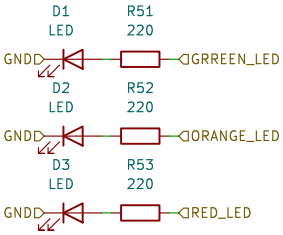

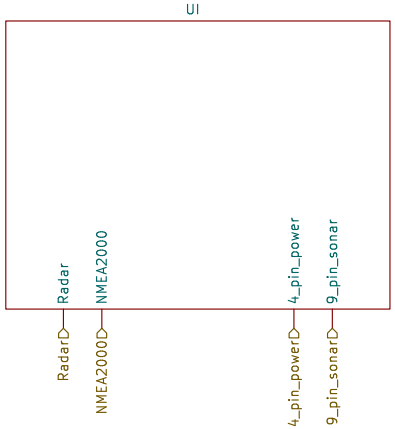

Designers: Krzysztof Grajek, Wojtek Kołodziej

Sheet: /User Interface/
File: User_Interface.kicad_sch

Title: UI schematic

Size: A4	Date: 2025-01-09	**Rev:**
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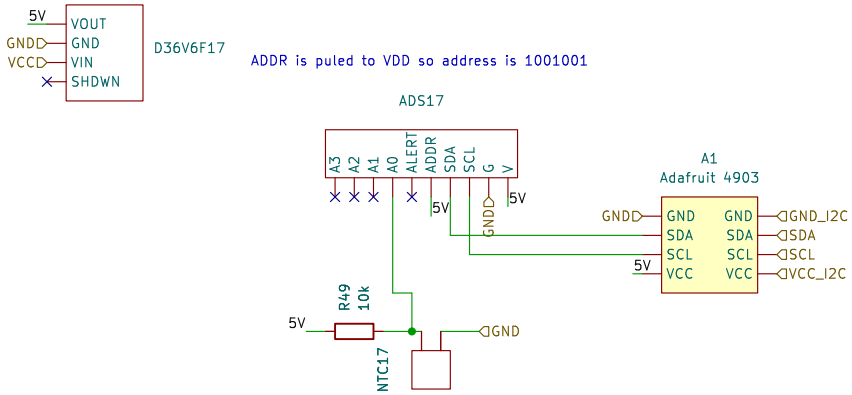

Designers: Krzysztof Grajek, Wojtek Kołodziej

Sheet: /Sensors/Battery_Temp_Sensors/Battery_Temp_Sensor/
File: battery_temp_sensor.kicad_sch

Title:

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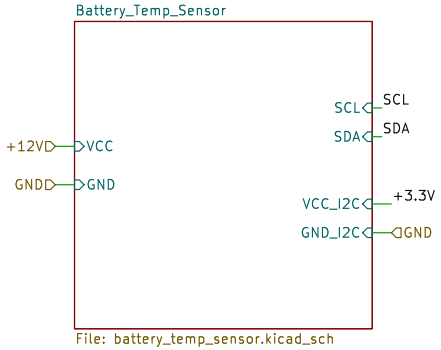

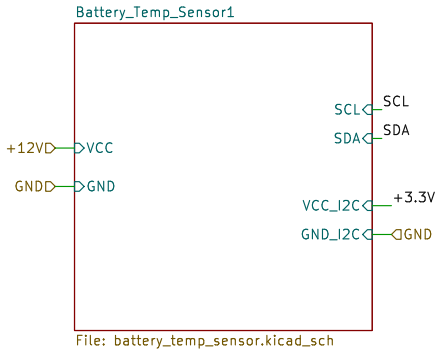

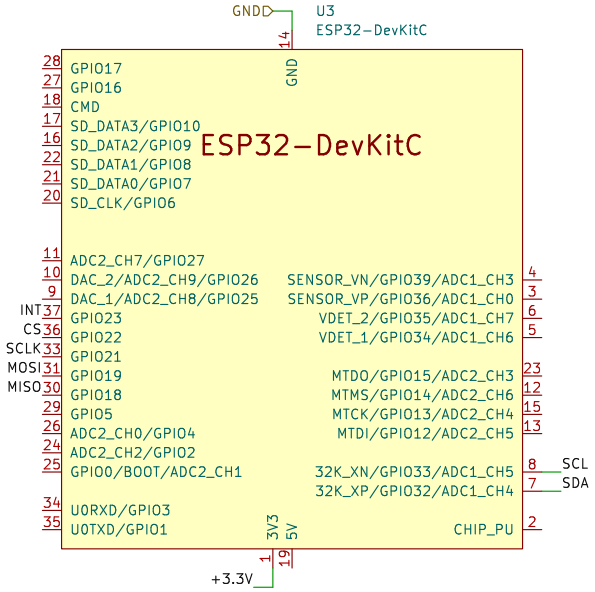

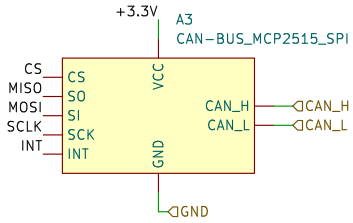

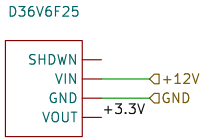

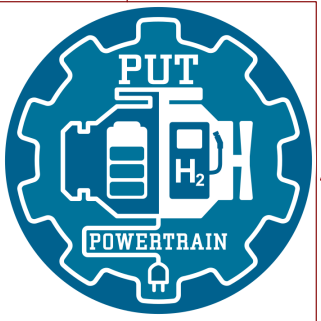

Designers: Krzysztof Grajek, Wojtek Kołodziej

Sheet: /Sensors/Battery_Temp_Sensors/
File: battery_temp_sensors.kicad_sch

Title:

Size: A4	Date: 2025-01-09	**Rev:**
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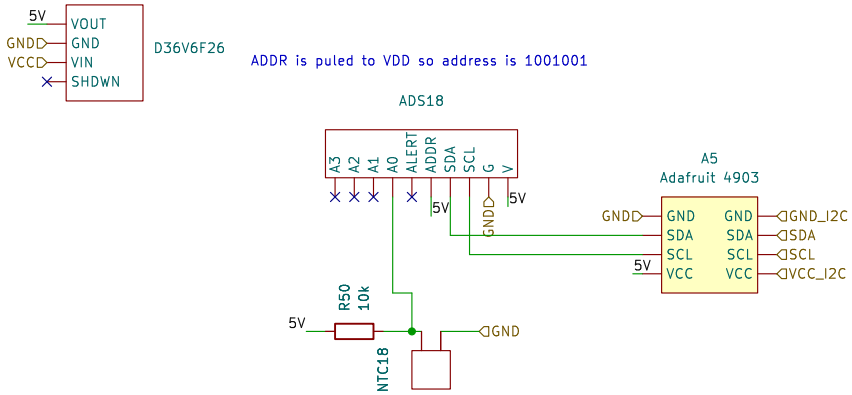

Designers: Krzysztof Grajek, Wojtek Kołodziej

Sheet: /Sensors/Battery_Temp_Sensors/Battery_Temp_Sensor1/
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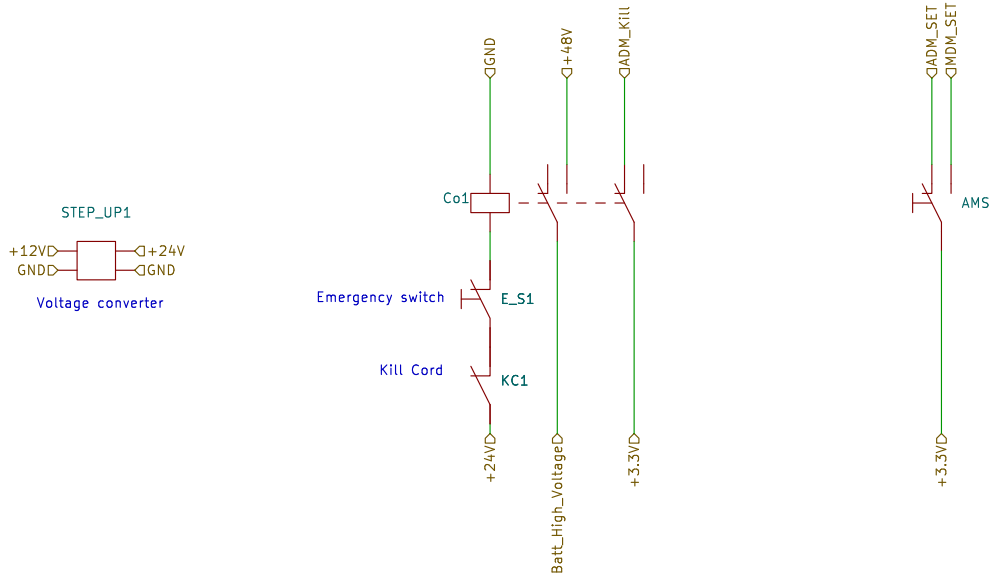
Size: A4	Date: 2025-01-09	**Rev:**
KiCad E.D.A. 8.0.3		Id: 35/36



Designers: Krzysztof Grajek, Wojtek Kołodziej

Sheet: /Switching system/
File: switching_system.kicad_sch

Title:

Size: A4	Date: 2025-01-09	**Rev:**
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