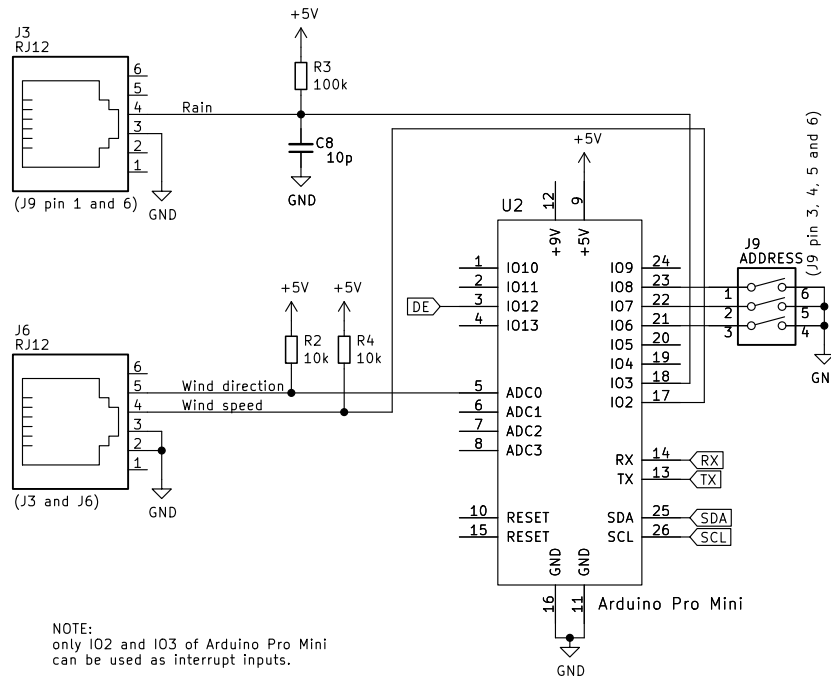


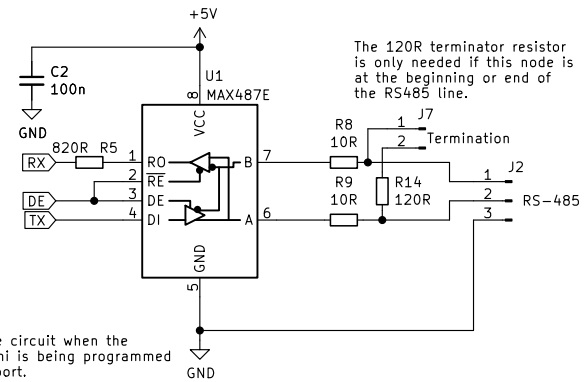
Microcontroller



NOTE:  
only IO2 and IO3 of Arduino Pro Mini  
can be used as interrupt inputs.

Annotations in brackets are the annotations of  
the "aprs\_measurement\_node" pcb.

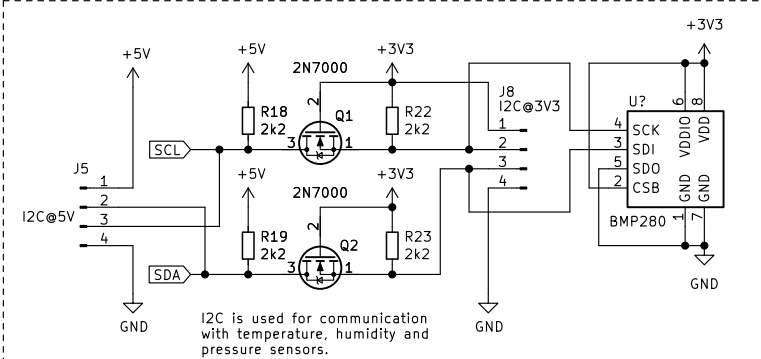
RS-485 transceiver



The 120R terminator resistor  
is only needed if this node is  
at the beginning or end of  
the RS485 line.

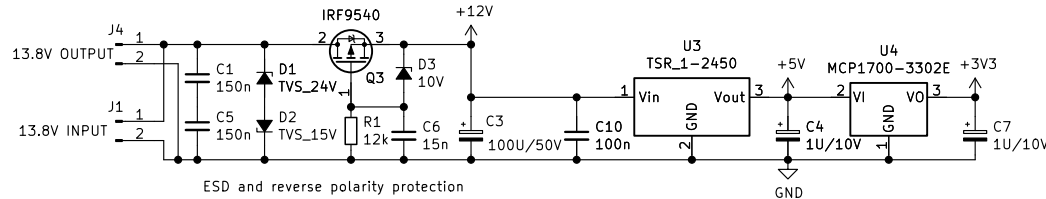
R5 protects the circuit when the  
Arduino Pro Mini is being programmed  
via the serial port.

I2C level shifter



I2C is used for communication  
with temperature, humidity and  
pressure sensors.

Power supply



ESD and reverse polarity protection

- H1 MountingHole
- H2 MountingHole
- H3 MountingHole
- H4 MountingHole

Convert "aprs\_measurement\_node" pcd:

- Remove RV1, RV2, R3, R6, R7, R10, C11 and C12
- Replace C8 and C9 with jumper
- Change R2 and R4 to 10k
- Place 100k resistor between pin 1 and 2 of J9
- Place 10pF capacitor between pin 2 and 6 of J9
- Place I2C level converter
- Place U4, C4 and C7
- Connect U2 pin 18 to U4 pin 24
- Connect U2 pin 17 to U4 pin 6
- Short U4 pin 2 and U4 pin 3

The ModBus address can be selected by connecting  
pin 3, 4 and/or 5 of J9 to pin 6 (ground).

<https://meezenest.nl/mees>

M.T. Konstapel

**Mees Electronics**

Sheet: /

File: ds-15901\_interface.kicad\_sch

**Title: DS-15901 weather station interface with RS-485 ModBus**

Size: A4 Date: 2023-12-29

KiCad E.D.A. kicad 6.0.11

Rev: A

Id: 1/1

