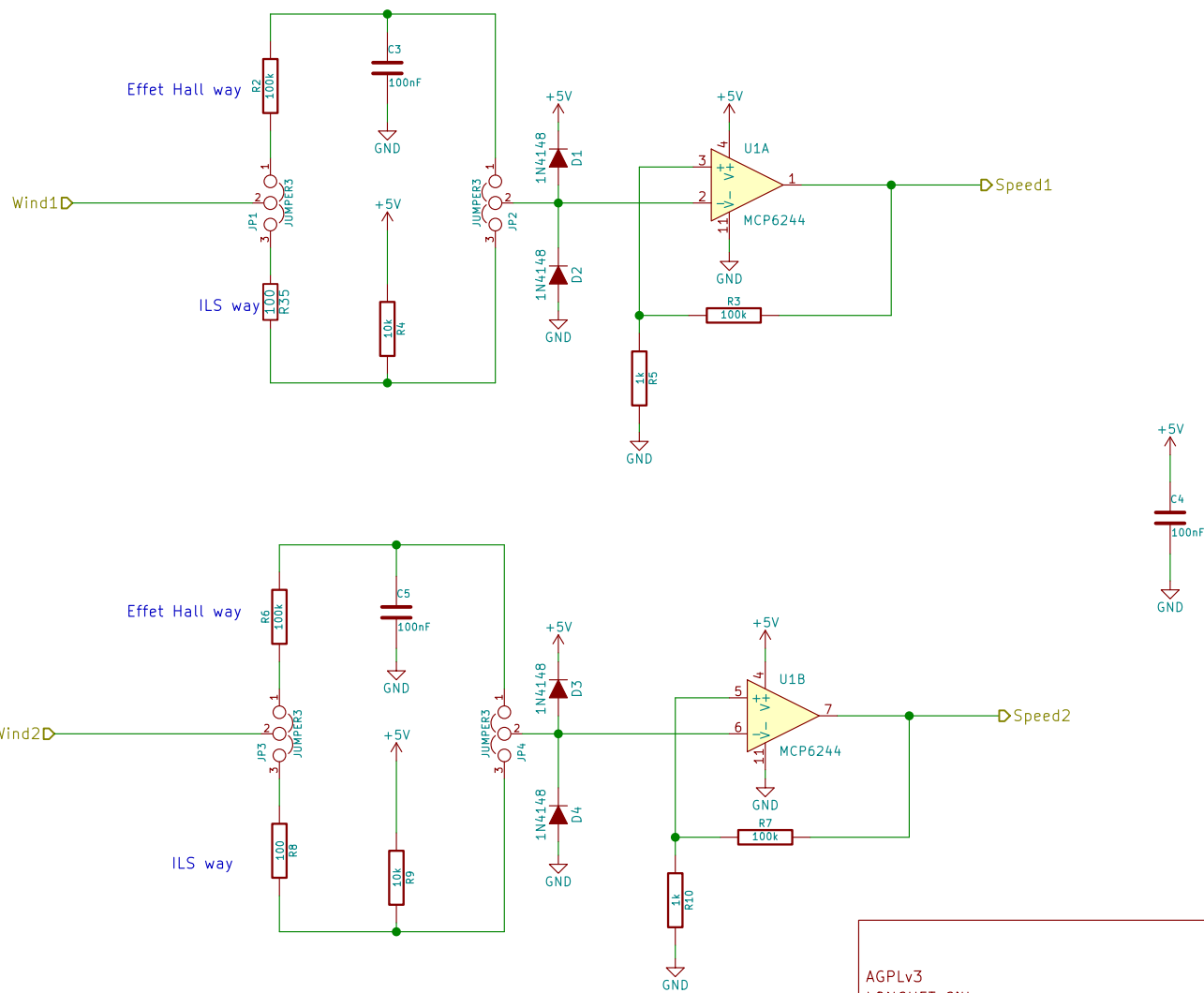


On this card it's possible to plug 2 anemometers.
For each, with 2 jumpers, select the good way : hall effect anemometer or ILS/open collector anemometers.



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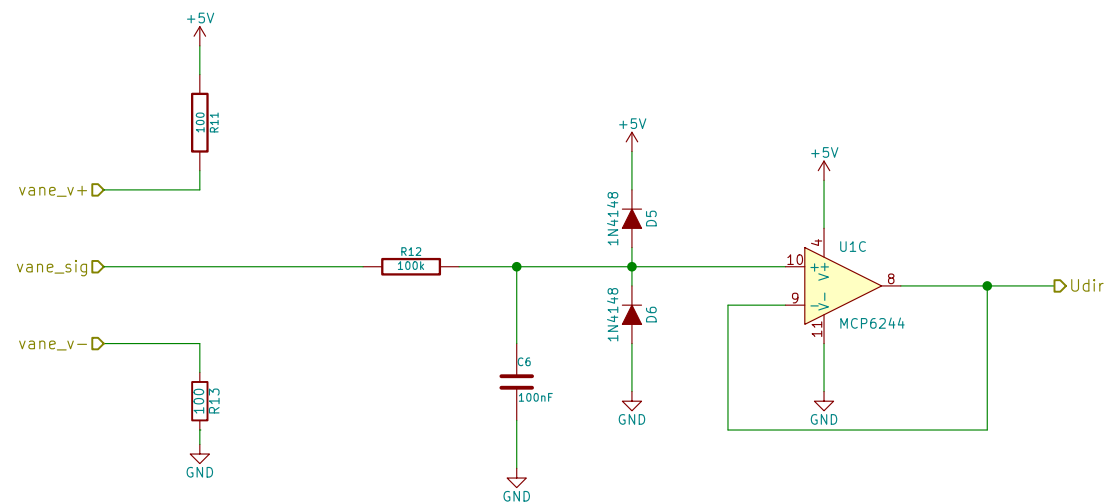
Sheet: /F1 Anemometers/
File: F1_anemometers.sch

Title: Anemometer function

Size: A4
KiCad E.D.A. kicad 4.0.2+dfsg1-2bpo8+1-stable

Date: 2016-10-16
Rev: A
Id: 2/5

Convert the resistor value from the windvane sensor in voltage.
It will be convert in degree by the microcontroler.



The two 100 Ohms resistors are the blink band from the windvane (8°).
With these we can't have short circuit between supply in the blink band.

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Sheet: /F2 windvane/
File: F2_windvane.sch

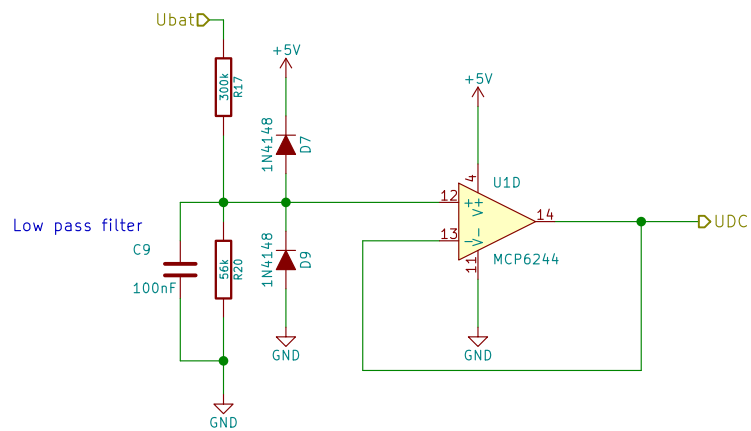
Title: Windvane function

Size: A4
KiCad E.D.A. kicad 4.0.2+dfsg1-2bpo8+1-stable

Date: 2016-10-16

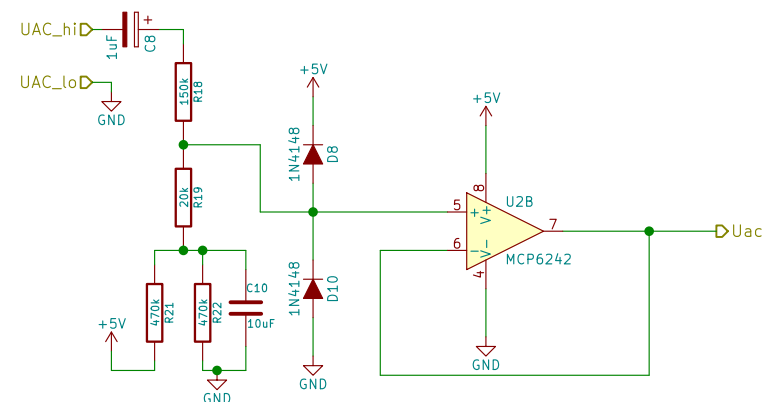
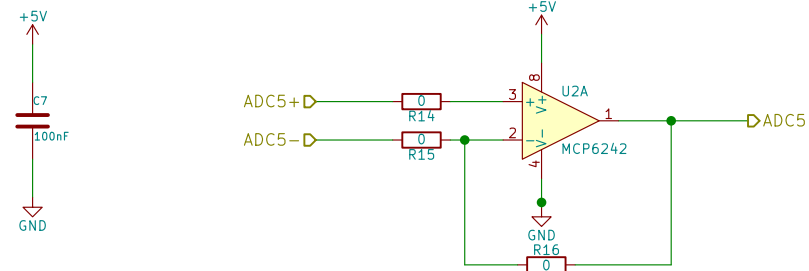
Rev: A
Id: 3/5

Batteries monitoring



For 6V batteries : R17 = 100kOhms, R20 = 470kOhms
 30V : R17 = 300kOhms, R20 = 56kOhms
 15V : R17 = 150kOhms, R20 = 56kOhms

Not used amp. Connect to the ADC5 pin.



The AC wattmeter come from OpenEnergyMonitor's works

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Sheet: /F3_Voltage_sensors/
 File: F3_Voltage_sensors.sch

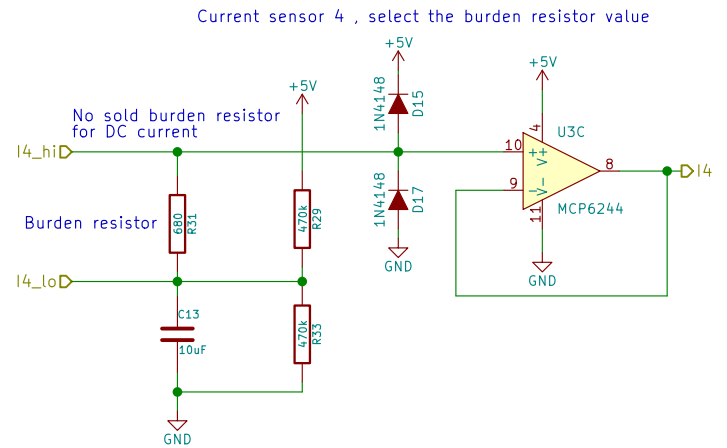
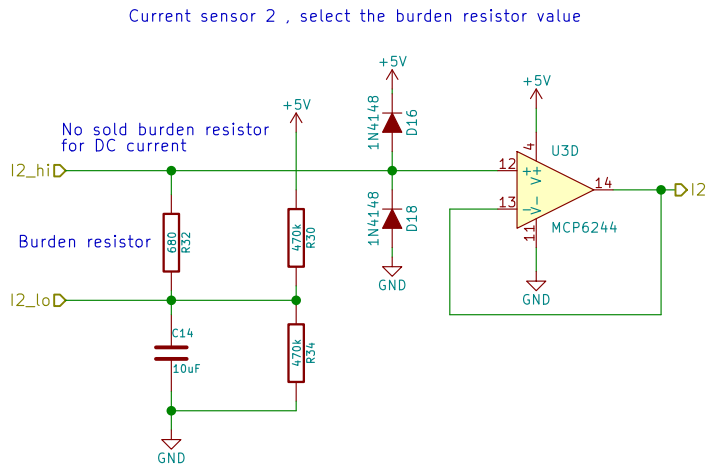
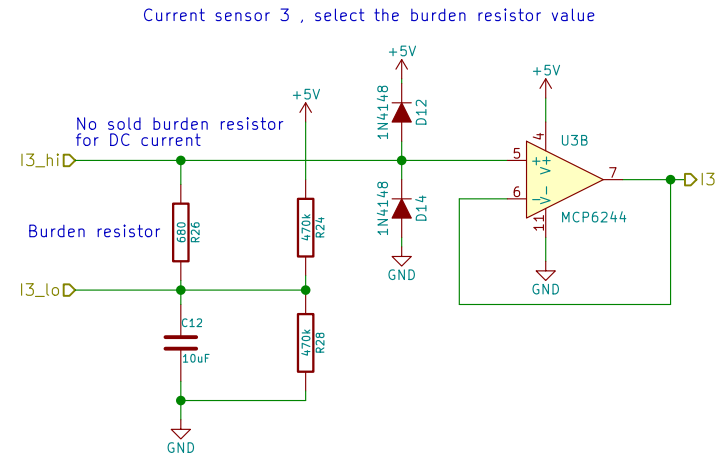
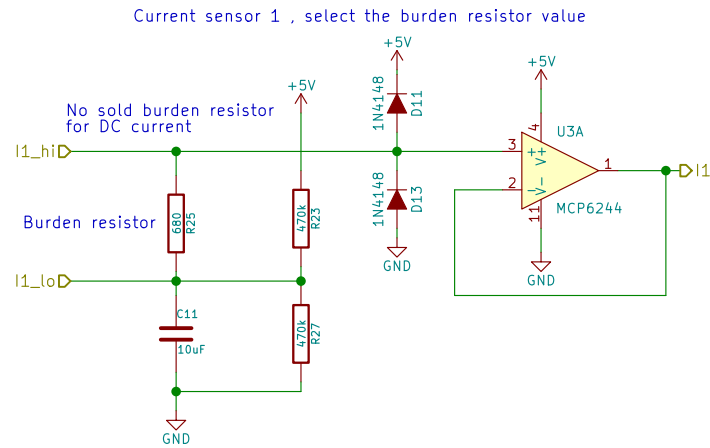
Title: AC/DC voltage conversion

Size: A4 Date: 2016-10-16

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Id: 4/5



Burden Resistor (ohms) = (AREF * CT TURNS) / (2*2 * max primary current)
 ex :
 180 : 16A
 90.9 : 32A



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 ALEEA

Sheet: /F4_Current_sensors/
 File: F4_Current_sensors.sch

Title: AC/DC current conversion

Size: A4 Date: 2016-10-16

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Rev: A

Id: 5/5