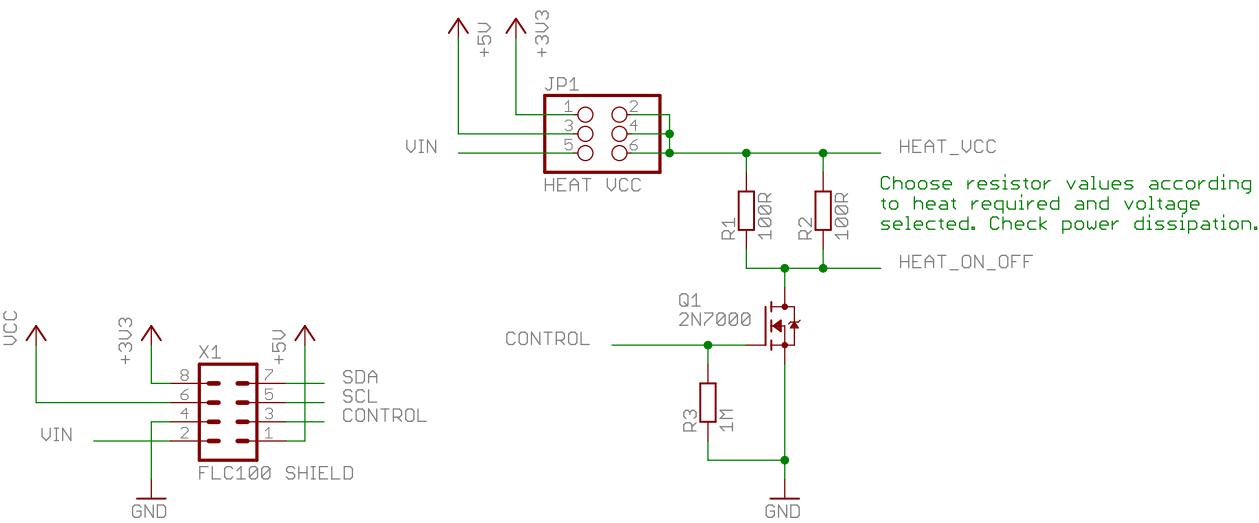


# Cloud detector PCB

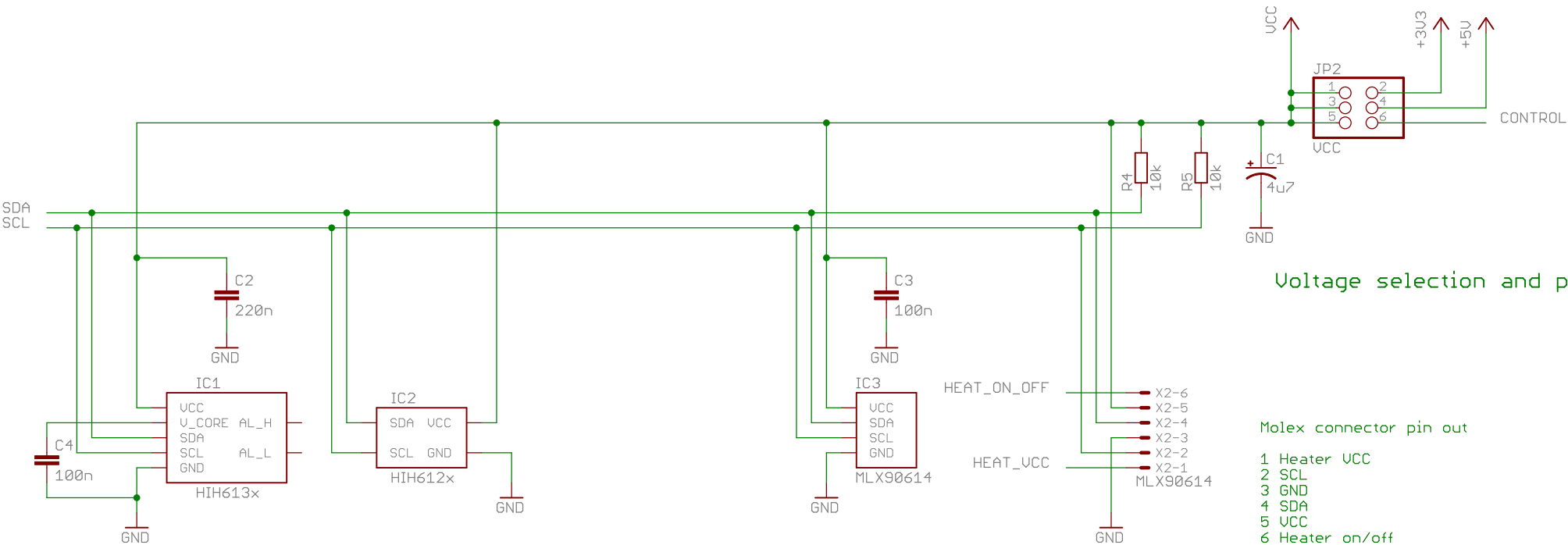
\* Intended to hold either IR temperature sensor or humidity sensor.  
\* For MLX90614 IR sensor select appropriate operating voltage (+3V3 or +5V).  
\* HIH-612x or HIH-613x humidity sensors operable at either +3V3 or +5V but shield port does not have level shifting, operating voltage choice limited to +3V3 or IOREF (function of FLC100 shield v2).  
\* For battery-powered operation sensors can be powered from a logic output (via CONTROL).  
\* For permanently-powered installations the CONTROL pin can be used to enable a heater for dew control.



2x4 IDC connector pin out

- 1 +5V (IOREF if no level translation)
- 2 VIN
- 3 CONTROL
- 4 GND
- 5 SCL
- 6 Sensor VCC
- 7 SDA
- 8 +3V3

Heater for dew control



Voltage selection and pull-ups

Molex connector pin out

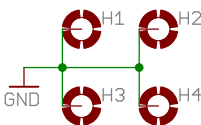
- 1 Heater VCC
- 2 SCL
- 3 GND
- 4 SDA
- 5 VCC
- 6 Heater on/off

Humidity sensor

Fit either SOIC8 or SIL4 package.

IR temperature sensor

Detects presence/absence of cloud by measuring 'sky' temperature.



Title: cloud\_humidity\_sensor\_v1

Version: 1.0

09/02/2014 12:37

Drawn By: Steve Marple

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