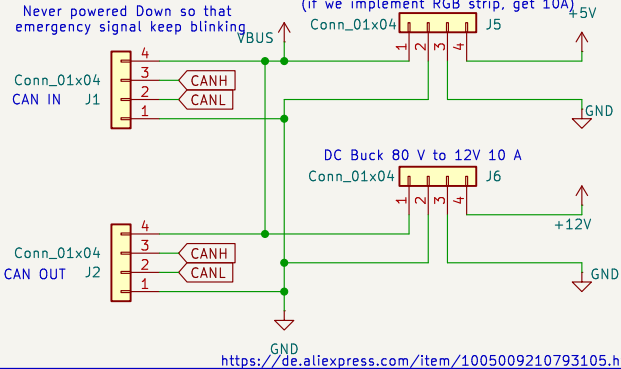


CAN BUS Power Rail

<https://de.aliexpress.com/item/1005005829877910.html>

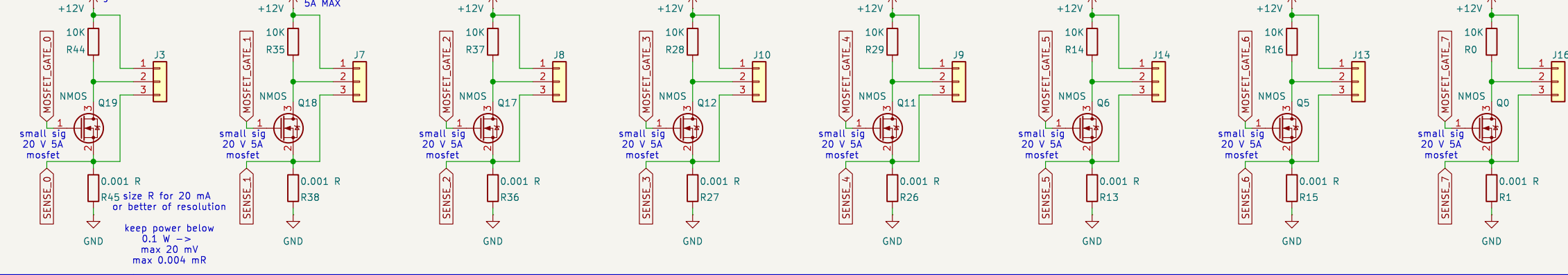
DC Buck 80 V to 5V 1 A
(if we implement RGB strip, get

Conn 01x04 15



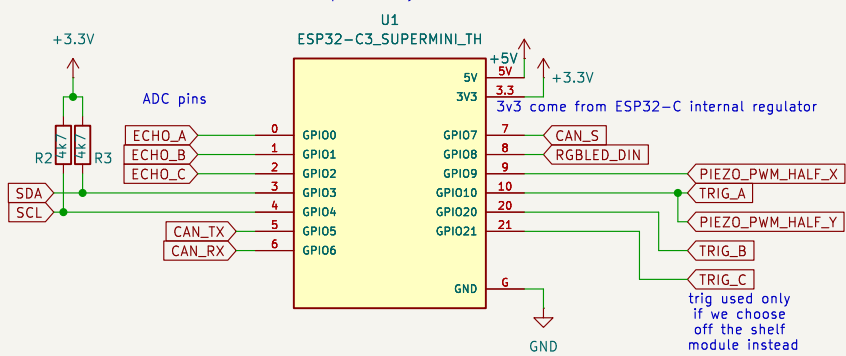
lightning

5A MAX \rightarrow 60W light



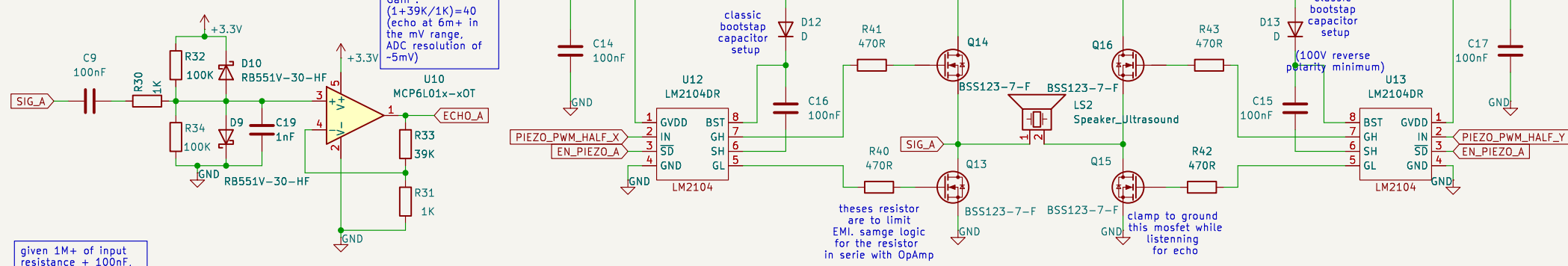
Compute

3v3 provided by internal LDO of ESP32 devboard



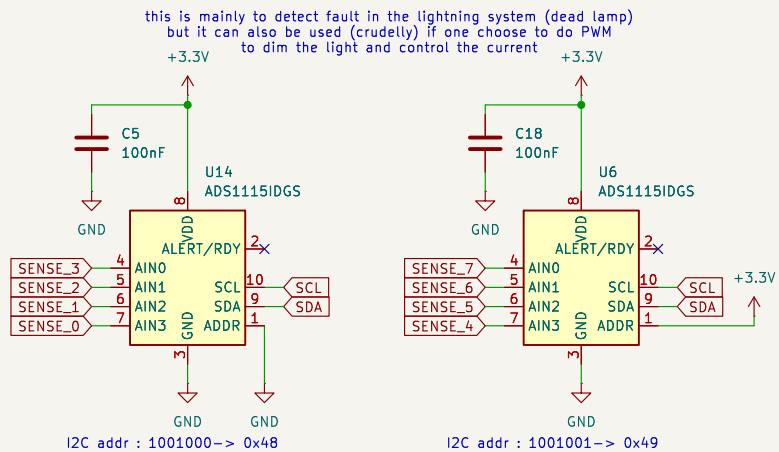
proximity sensor

Gain :
 $(1 + 39K/1K) = 40$
 (echo at 6m+ in
 the mV range,
 ADC resolution of
 ~5mV)

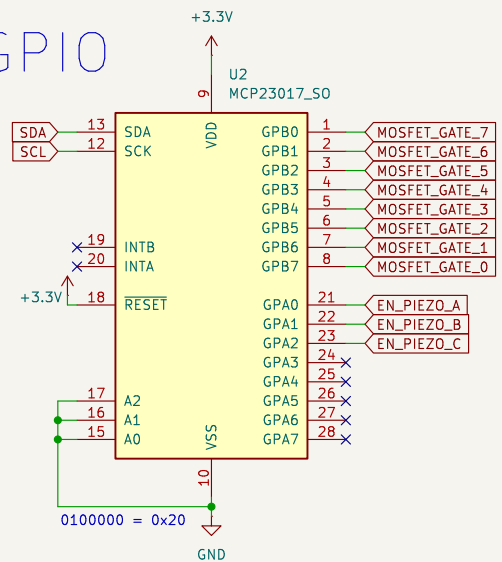


ADC for current sensing

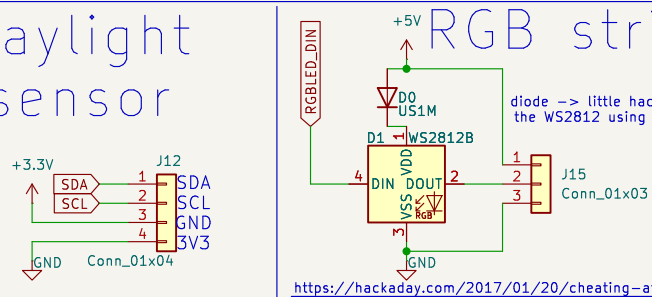
this is mainly to detect fault in the lightning system (dead lamp)
but it can also be used (crudely) if one choose to do PWM
to dim the light and control the current



GPIO

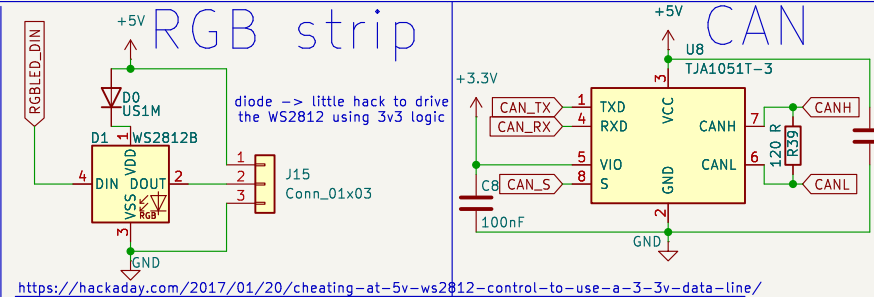


daylight
sensor

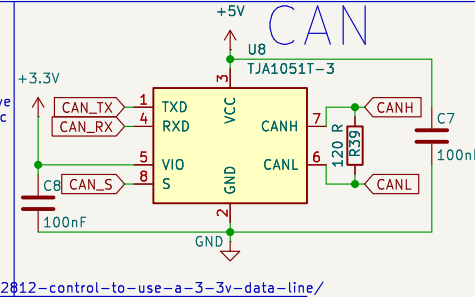


RGB strip

diode -> little hack to drive the WS2812 using 3v3 logic



CAN



Sheet: /
File: velion_lightboard_pcb.kicad_sch

Title:

Size: A3

Date:

Rev:

Id: 1/1