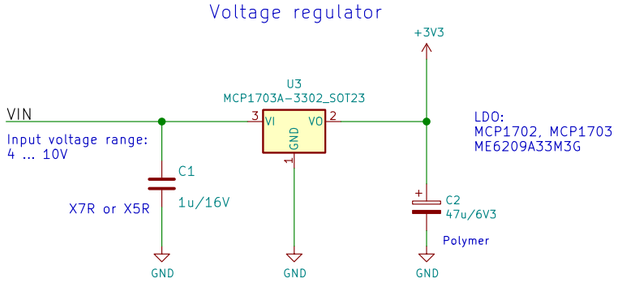
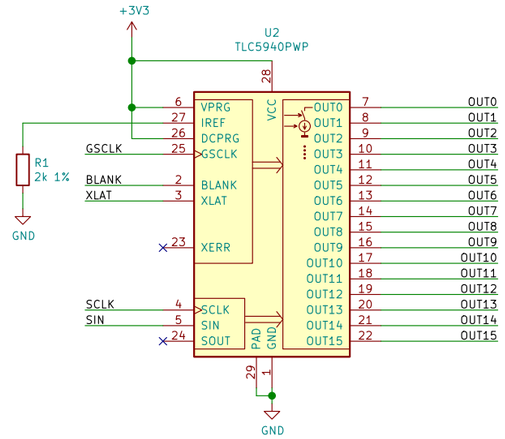
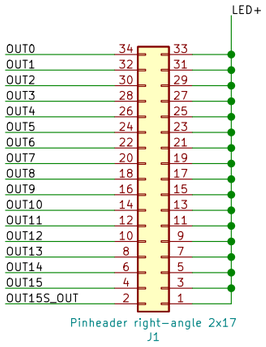
## Voltage regulator



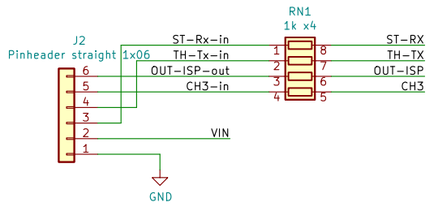

## LED driver



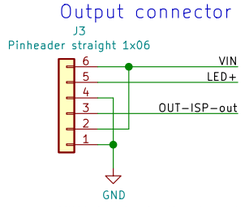

## LED output




## Servo/Pre-processor in/out

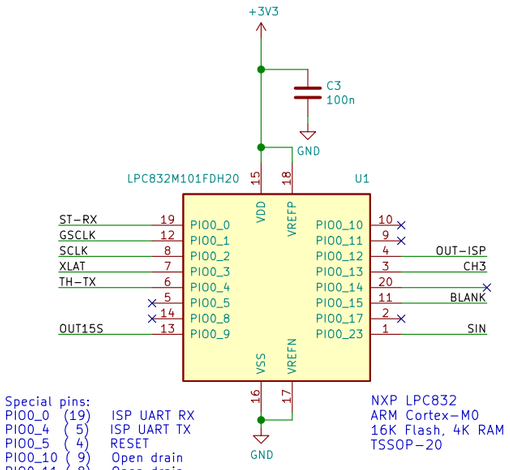



## Output connector




VIN1 is physically close to LED+.
This allows two modes of operation:
1) when VIN1 is conntected to LED+
via a jumper, then the LEDs are
powered from the receiver.
2) A separate power supply can be
connected to LED+ (and the nearby GND),
e.g. for higher voltages

## Microcontroller



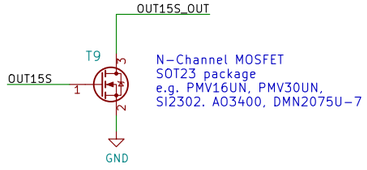

Special pins:
PIO0_0 (19) ISP UART RX
PIO0_4 ( 5) ISP UART TX
PIO0_5 ( 4) RESET
PIO0_10 ( 9) Open drain
PIO0_11 ( 8) Open drain
PIO0_2 ( 7) SWDIO
PIO0_3 ( 6) SWCLK

NXP LPC832
ARM Cortex-M0
16K Flash, 4K RAM
TSSOP-20

PIO0_14 serves as detection whether
the hardware has the TLC5940 or is the switching version.
For TLC5940 it must be left floating (pull-up).
For switching version it must be pulled to GND.

Pin assignment is similar to LPC812,
with the following exceptions:
BLANK is PIO0_15 instesad of PIO0_6
SIN is PIO0_23 instesad of PIO0_7

## Switched output driver




N-Channel MOSFET
SOT23 package
e.g. PMV16UN, PMV30UN,
SI2302. AO3400, DMN2075U-7


laneboysrc@gmail.com
**LANE Boys RC**

Sheet: /
File: rc-light-controller-pinheader-lpc832.sch

***Title: DIY RC Light Controller Mk4 P***

| Size: A3 | Date: 2020-06-14 | **Rev: 1** |
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