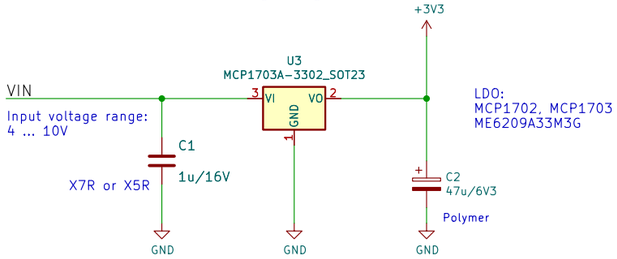
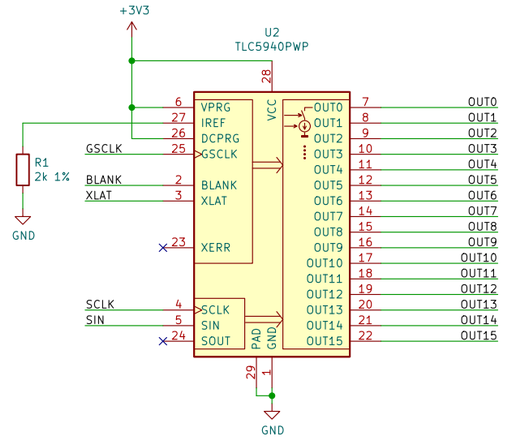
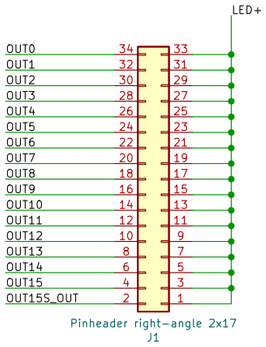
Voltage regulator



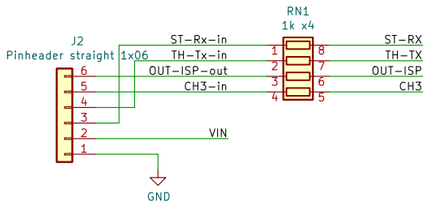
LED driver



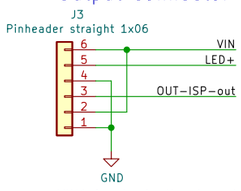
LED output



Servo/Pre-processor in/out

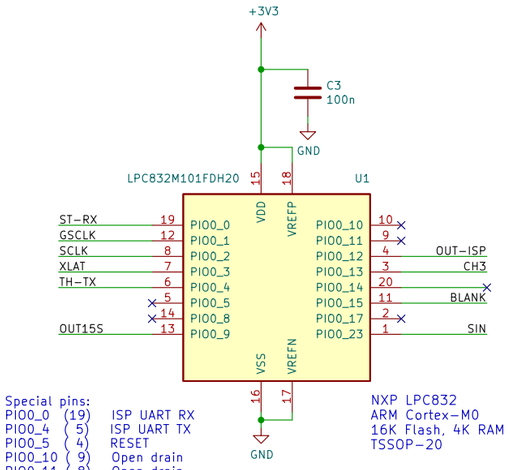


Output connector



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



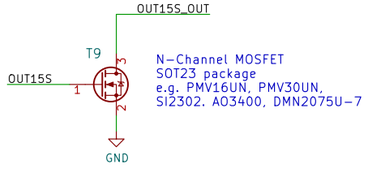
Special pins:
PIO0_0 (19) ISP UART RX
PIO0_4 (5) ISP UART TX
PIO0_5 (4) RESET
PIO0_10 (9) Open drain
PIO0_11 (8) Open drain
PIO0_2 (7) SWDIO
PIO0_3 (6) SWCLK

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

PWR_FLAG
GND

H1
MountingHole

H2
MountingHole

laneboysrc@gmail.com
LANE Boys RC

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

Title: DIY RC Light Controller Mk4P

Size: A3	Date: 2025-01-12	**Rev: 4**
KiCad E.D.A. kicad 6.0.11+dfsg-1		Id: 1/1