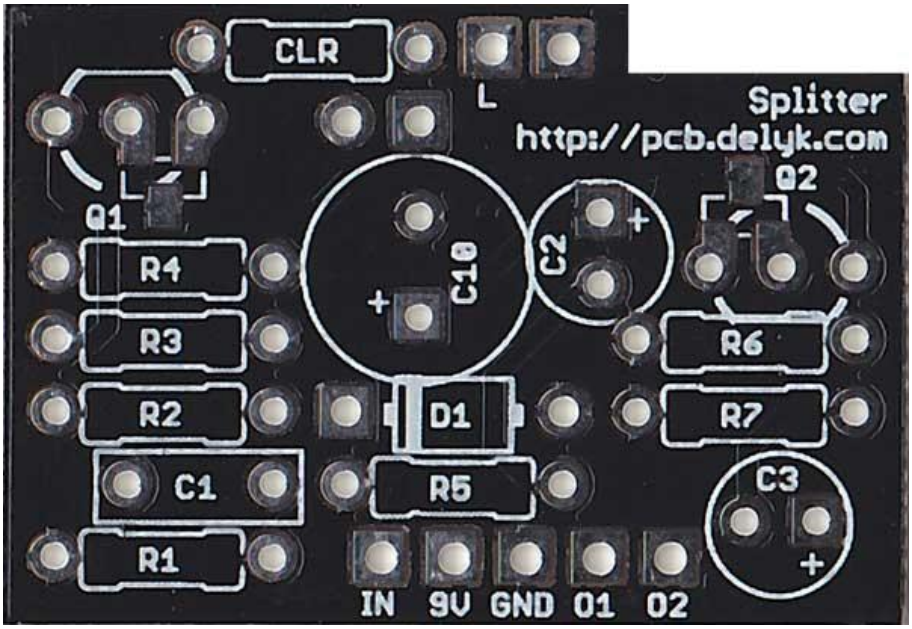


Buffered Splitter

Build Document

Introduction

Nothing super fancy, but oh so necessary.

This started because a friend needed a PCB to help buffer the tuner out on his Ernie Ball VP Jr.

Bill of Materials

Resistors

P/N	Value	Notes
R1	10M	Input pulldown.
R2	2M2	
R3	2M2	
R4	10k	
R5	100k	Output 1 pulldown.
R6	10k	
R7	100k	Output2 pulldown.
CLR	10k	Pick a value for your LED brightness.

Diodes

P/N	Value	Notes
D1	1N400x	Polarity protection.
D2	LED	Square pad is negative (cathode)

Capacitors

P/N	Value	Type	Notes
C1	100n	Film Box	
C2	1u	Electrolytic	
C3	1u	Electrolytic	
C10	100u	Electrolytic	Filter cap. At least 16V.

Transistors

I know JFETs are becoming more and more difficult to find. You can use a multitude of JFETs here. SMD pads are on the board if you want to go that route.

P/N	Value	A few Alternative Ideas
Q1	2N5457	MPF102, J201, MMBT5457, MMBFJ201, J113
Q2	2N5457	

Build Notes

O1 is the first output. O2 is the second output.

L is if you want to use a switch, like a 3PDT, to turn the LED on or off. This is the cathode (negative) of the LED, so you want it to go to ground.

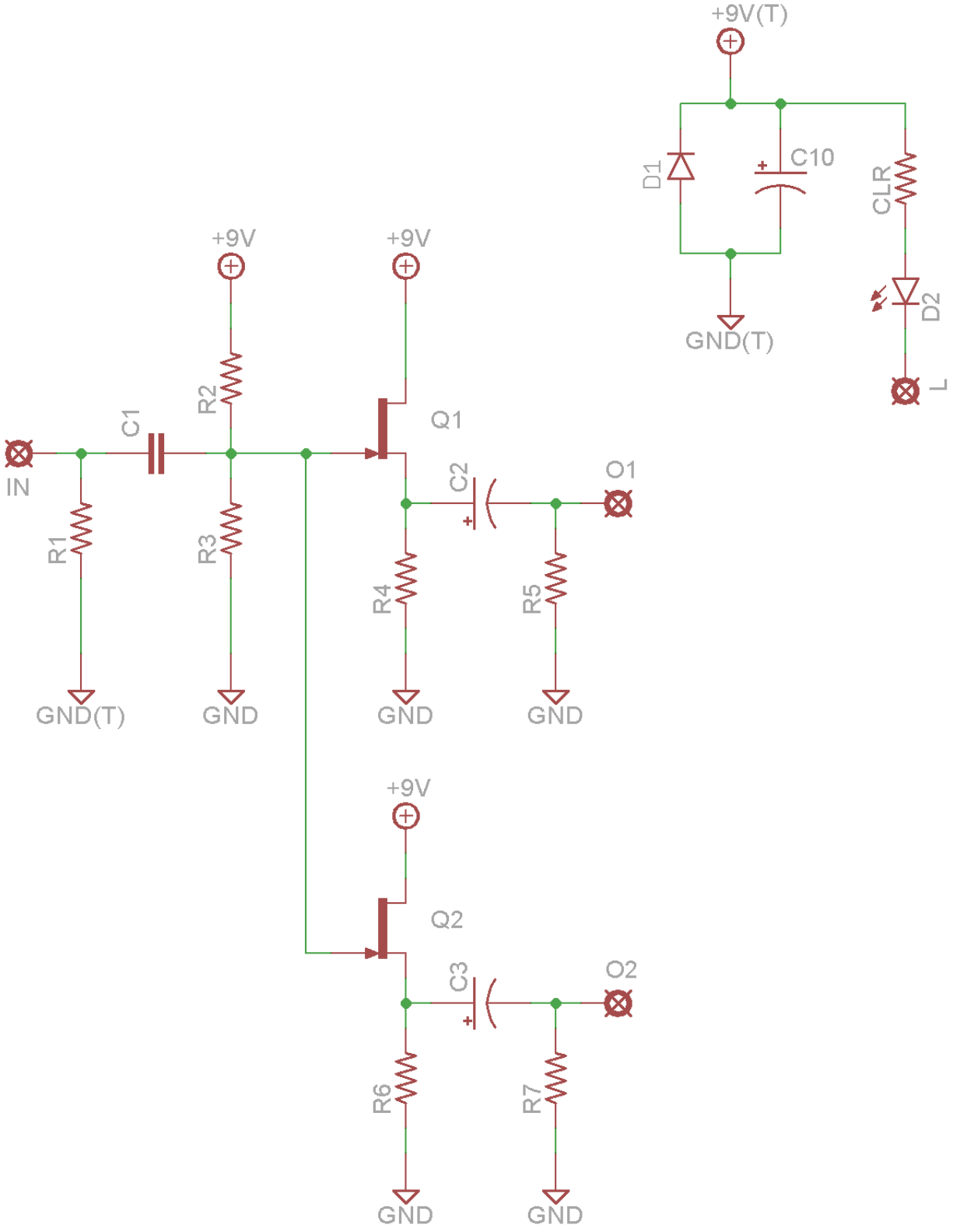
If you prefer that the LED is on 100% of the time, jump the L to a GND pad. **NOTE: It appears there's a silkscreen malfunction. The square pad to the right of the L pad is GND.**

Suggested Solder Order

Nothing too fancy here. Should be a super easy build.

If you're doing SMD transistors, do them first. Otherwise, do transistors after resistors and film box caps.

Schematic



Images