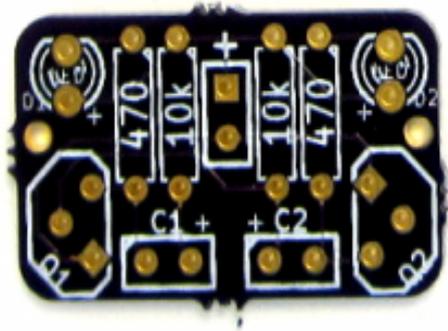**The Toymakers @ tymkrs.com**
Questions? Please contact us:
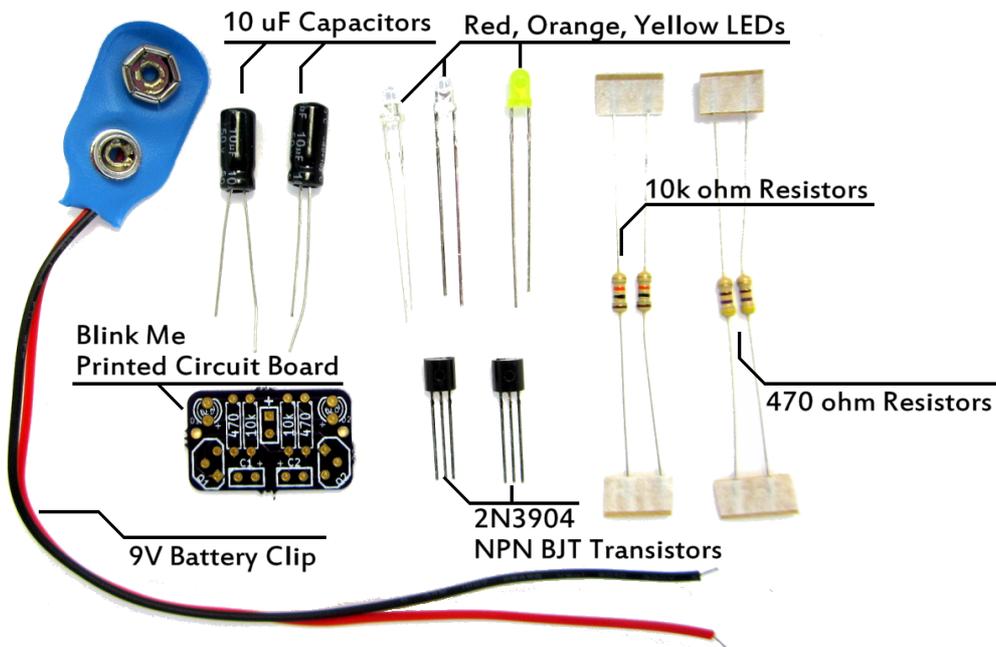feedback@tymkrs.com

DATASHEET

Blink Me
Dual LED Flasher Kit

The Blink Me kit is a dual LED flasher kit great for beginners and for putting in items that require flashing lights!

- Kit Type: Through-hole soldering
- Assembly instructions: In datasheet
- Function: Dual LED Flasher Kit

KIT CONTENTS

10 uF Capacitors
Red, Orange, Yellow LEDs
10k ohm Resistors
470 ohm Resistors
Blink Me Printed Circuit Board
2N3904 NPN BJT Transistors
9V Battery Clip

Contents of the Midi Out Me Kit:

- Blink Me printed circuit board (24.10 x 14.60 x 1.60mm)
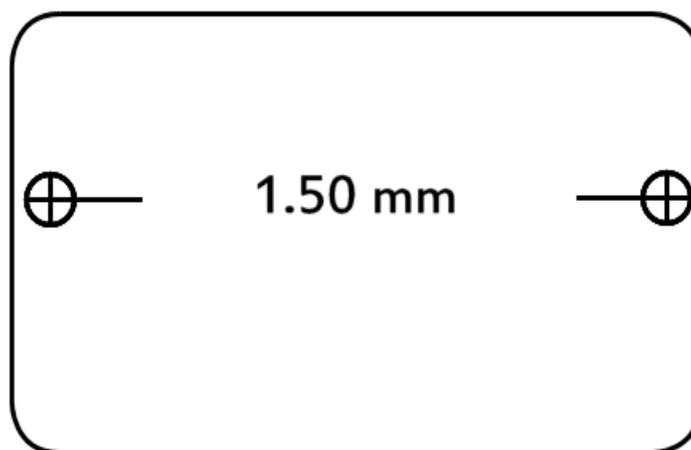- 9V Battery Clip
- Electrical Components

Electrical Components:

Reference	Quantity	Type	Value
D1	1	LED	Red/Orange/Yellow
D2	1	LED	Red/Orange/Yellow
R1	1	Resistor, 1/4W	470 ohms
R2	1	Resistor, 1/4W	10k ohms
R3	1	Resistor, 1/4W	10k ohms
R4	1	Resistor, 1/4W	470 ohms
Q1	1	BJT NPN Transistor	2N3904
Q2	1	BJT NPN Transistor	2N3904
C1	1	Capacitor, 16V	10uF
C2	1	Capacitor, 16V	10uF

Recommended Operating Conditions

Parameter	Ratings	Unit
Supply Voltage	4.5 – 5.5	V
Operating Temperature	-40 to +85	ºC

Mounting Holes:

Tools and material required for assembly (not included with the kit):

- Soldering iron
- Solder
- Wire clippers

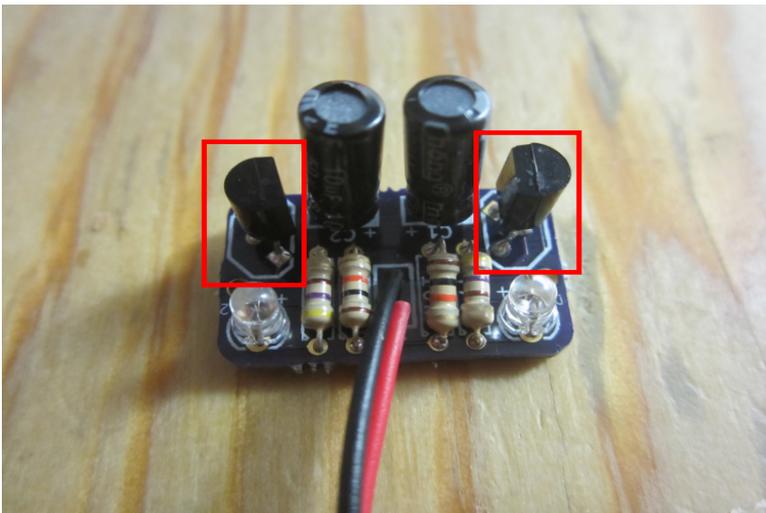**Additional physical/electrical specifications:**

- Printed Circuit Board size: 0.95 x 0.57 x 0.063" (24.1 x 14.60 x 1.60mm)
- PCB thickness: 0.063" (1.60mm), not including any components
- PCB thickness: 1.024" (26mm), max height with capacitors
- Mounting holes: 2 holes provided. See drawings for locations and size.
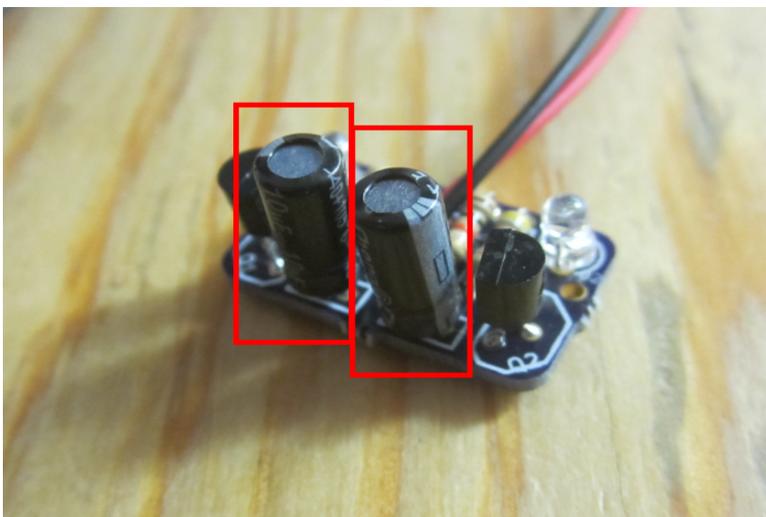
Assembly Instructions

Build Notes:

- There are 3 LEDs provided – red, orange, and yellow – the PCB takes 2, so feel free to choose which colors you would like!
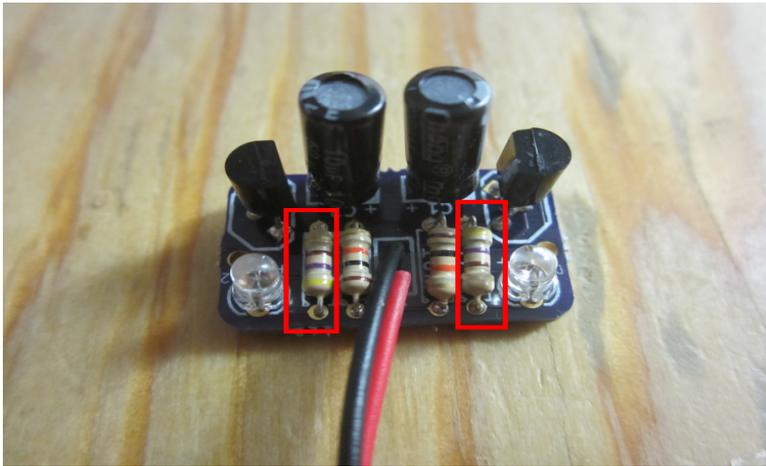
Step 1: Put in the components

2n3904 Transistors

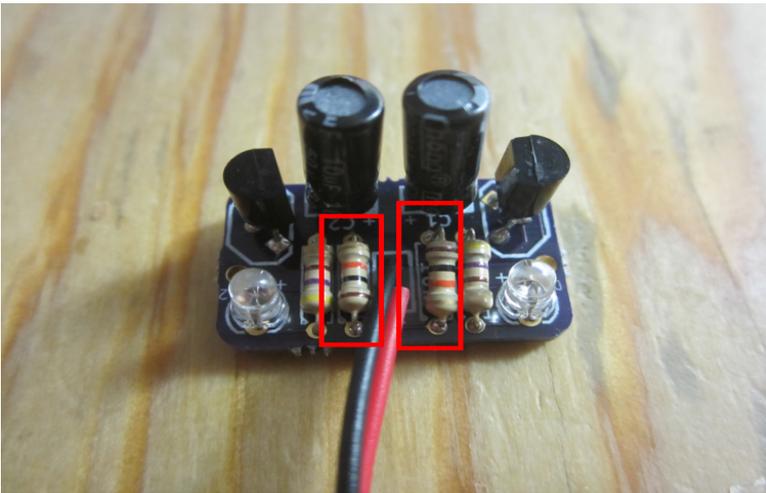You'll want to match the curve of the transistors to the curve of the graphic!

Capacitors

Polarity matters with these – you'll want to face the – (cathode) side of the capacitors towards the outside of the board (or towards the transistors if that's easier)

470 ohm resistors

Put these in the slots labeled with 470. Polarity does not matter!

10k ohm resistors

These go into the slots labeled 10k and these are also not polarity dependent.

LEDs

There are 3 LEDs that you can choose from – red, orange, and yellow. You'll want to test which side is + and which side is -. The easiest way to do this is to quickly check them against a coin cell battery to see which side is + and which is -. The + side of the LED goes towards the top of the board.

Step 2: Solder it up and then clip the extra leads!

I use 60/40 0.38mm gauge solder for these pads. Using nibbers or nail clippers, trim the extra leads off of the electrical components!

Once you've plugged in the battery, you should see the lights start to flash back and forth!