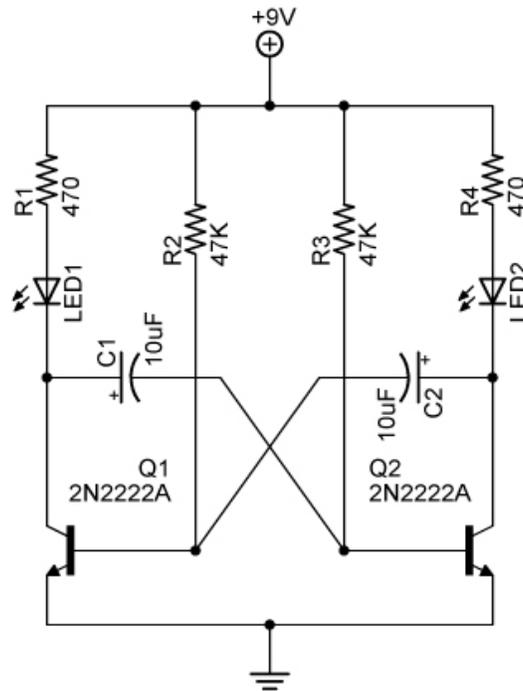


Transistor Dual LED Flasher



Transistor Dual LED Flasher

Explanation: The two 470 ohm resistors determine the LED's brightness and limit the current flow to about 20mA. To calculate the value of resistor in an LED circuit, go to http://cornerstonerobotics.org/curriculum/lessons_year1/ER%20Week8,%20Lighting.pdf The rate of flashing is controlled by the 47K resistor and the 10 μ F capacitor. You can experiment with different values for both components to change the flash rate. The two sides do not have to be the same; try different values to adjust the rate. For an explanation of how the circuit works, look-up astable multivibrator in Google.

Related web sites:

<http://electropart.info/schematic-diagrams/led-flip-flop-project.html>

<http://www.sentex.net/~mec1995/circ/flash2.htm>

<http://wild-bohemian.com/electronics/flasher.html>

<http://www.davidbridgen.com/astable.htm>