



- CdS: Photoresistor (rated 3k - 0.3M ohm)  
 R1: 1k ohm  
 R2: 100k ohm  
 R3: 10k ohm  
 VR1: 50k ohm  
 C1: 22pF  
 C2: 10uF  
 L1: 100 - 470uH  
 Q1: 2N5401 (or PN2907, 2N3906, etc.)  
 Q2, Q3: MPSA06 (or PN2222, 2N3904, 2N4401, etc.)  
 D1: 1N4148 or equivalent  
 D2: Color changing LED

Title Colour Night Joule Thief			
Date 02/22/2012	Rev. 1	Sheet 1 of 1	
Designed by Akimitsu Sadoi			