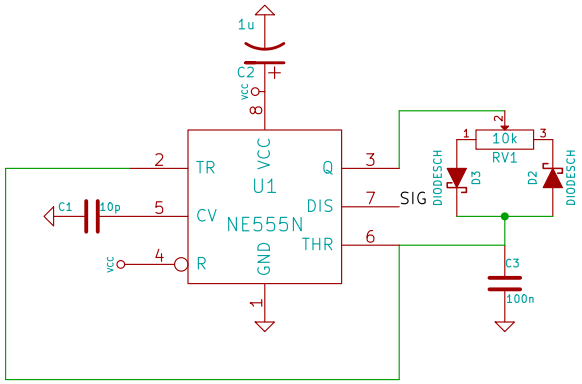

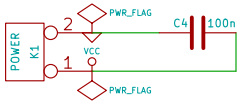

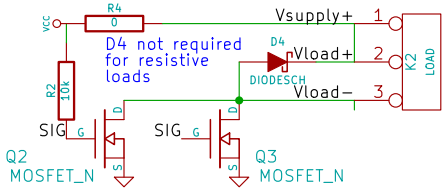

Place either Q2 (DGS) or Q3 (GDS) depending on layout. Do not place both. PCB traces sized for 4A max.

All values subject to application requirements and datasheet limitations and requirements. C2 and C4 types and values are specified in 555 datasheet.

Rectifier diodes may generally be used for D4. Schottky diodes for D2/D3 will give better frequency stability across the PWM range than rectifer diodes.

Increased RV1 or C3 value reduces frequency:
Frequency ≅ 1.44 / (RV1 * C3)

Check datasheets for all specific parts you choose to ensure that all specifications will be met.

Use (abuse?) of discharge (pin 7) for signal in order to keep PWM frequency stable while setting duty cycle with potentiometer and two diodes inspired by a design by Rick Bickle:
http://www.dprg.org/tutorials/2005-11a/

File: flex-pcm-controller.sch	
Sheet: /	
Title: Flexible PCM Controller	
Size: USLetter Date: 18 sep 2014	Rev:
KiCad E.D.A.	Id: 1/1