I just wanted to add this to the LED knowledge base

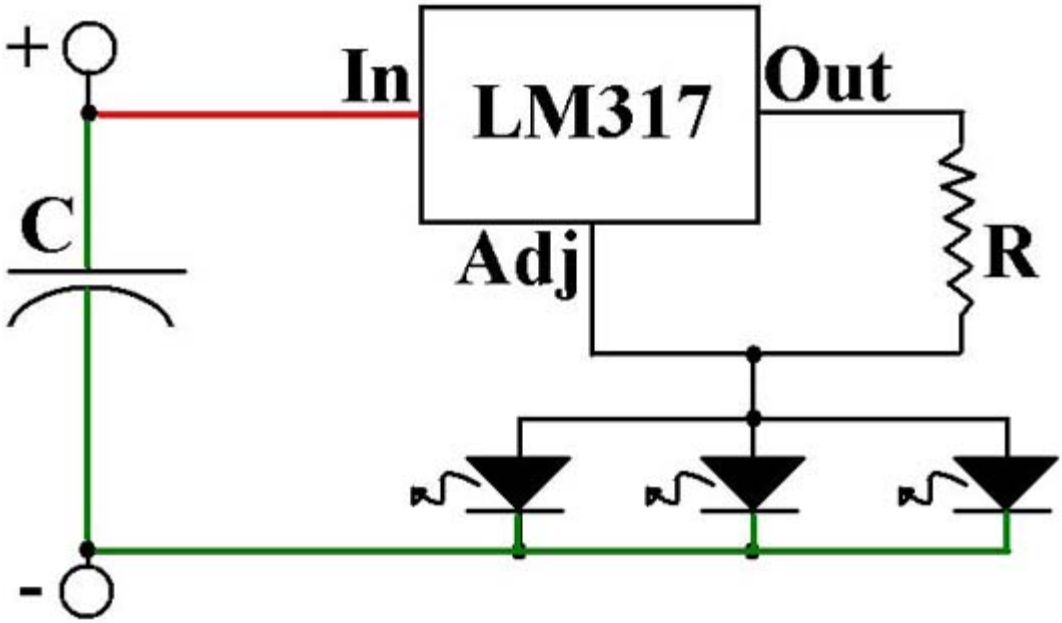
You can easily use the LM317 to regulate current to 3 LEDs (rather than 4)... here's how:

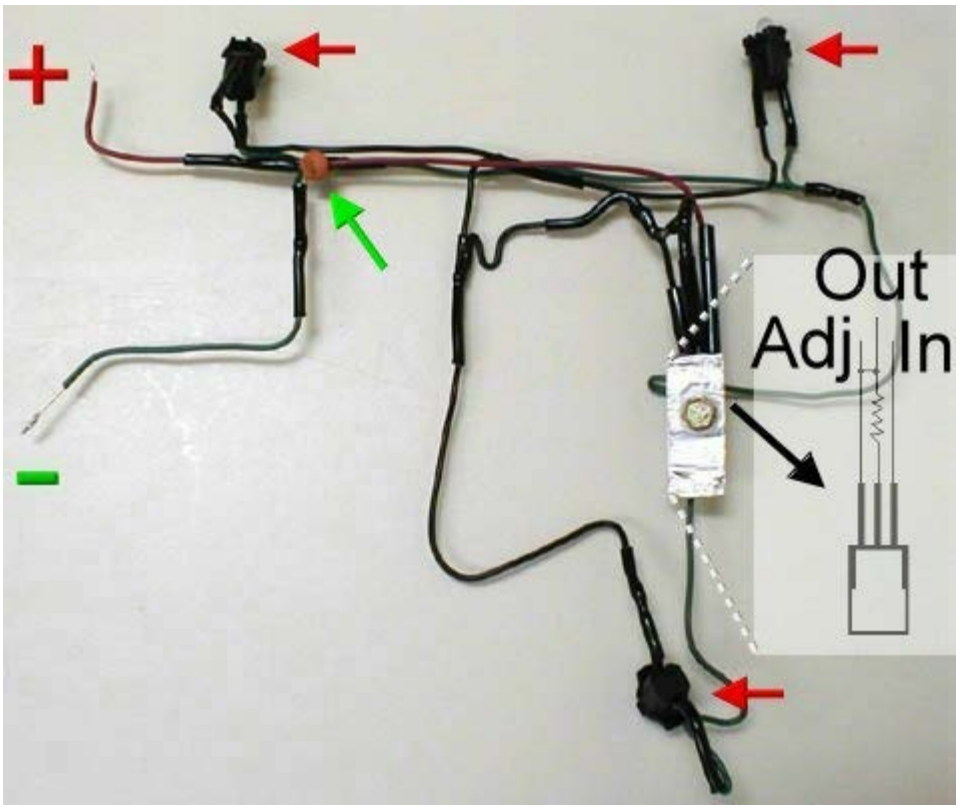
1. Pick out your LEDs (I'm using Red, rated at 20mA max, each).
Note: get some bright ones (mine were 3000MCD I believe) b/c you can always dim them

2. Determine the value of resistance needed: R=1.2/I (where I=60mA in my case... i.e. 20mA * 3 = 60mA)
So, R=20 ohms. And C=0.1 microF (though this really isn't needed, it's for filtering noise)

3. Go buy your stuff (LM317 IC, Resistor(s), and LEDs, etc.

4. Wire/solder everything up per the diagram(s)... I did it all as one unit that can easily be installed onto the dash:






(red arrows are the LEDs, green is capacitor, +/- bias indicated, and the inset shows the connections to the regulator)

5. Test it out before installing (I used the AC/DC converter plugged into my answering machine:

Yep, it works.

Also: I took some sandpaper to the LEDs to roughen them up so they diffuse light better:

(BTW, the pick of lighted LEDs dosn't look very red b/c I too have a cheap digicam)

Anyways... just thought some may want the 3 LEDs rather than 4 (I was just too lazy to drill the 4th hole )