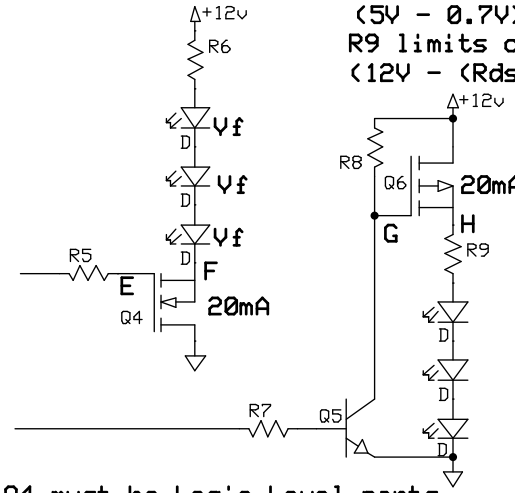
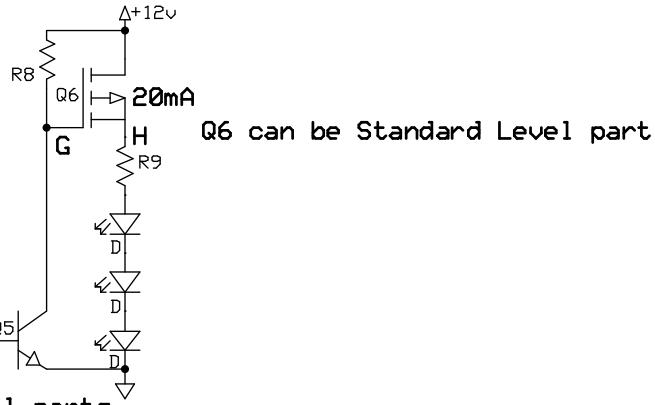
N-Channel Q4 - Arduino High supplies voltage to Q4,
Q4 turns on to allow current flow thru LEDs.
Voltage at E be ~5V, and F ~0V (20mA * Rds)
R5 limits current from Arduino into capacitance of Q4:
(5V - 0V))/.020A = 250 ohm
R6 limits current from 12V into the LEDs:
(12V - Vf - Vf - Vf - (.020A * Rds)V)/.020A = R6 ohm

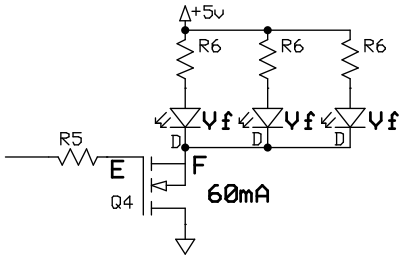
P-channel Q6 - R8 holds Q6 gate high to keep Q6 off.
Arduino High supplies current to Q5 base,
Q6 turns on to allow current flow thru LEDs.
Voltage at G will be ~0.7V and H ~12V (Rds * 20mA).
R7 limits current from Arduino into Q2:
(5V - 0.7V)/.020A = 215 ohm
R9 limits current from 12V into the LEDs:
(12V - (Rds * 0.020A)V - Vf - Vf - Vf)/.020A = R9 ohm

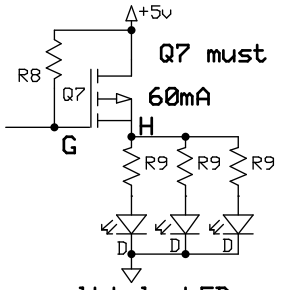




Q6 can be Standard Level part

Q4 must be Logic Level parts





Q7 must be Logic Level parts

Alternate methods to drive multiple LEDs