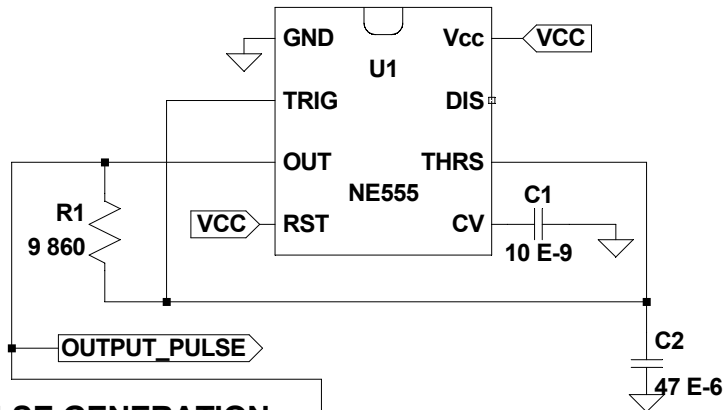
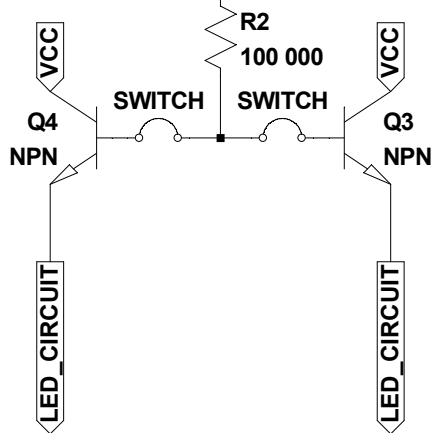


NOTE: DISCHARGE (PIN 7) MUST BE "DISCONNECTED" (OR 'HIGH')
IN ORDER TO MAINTAIN AN APPROX 50% DUTY CYCLE



PULSE GENERATION

LIGHT OUTPUT



CURRENT CONTROL CIRCUIT

ONE OF THESE IS REQUIRED
PER LED LINE

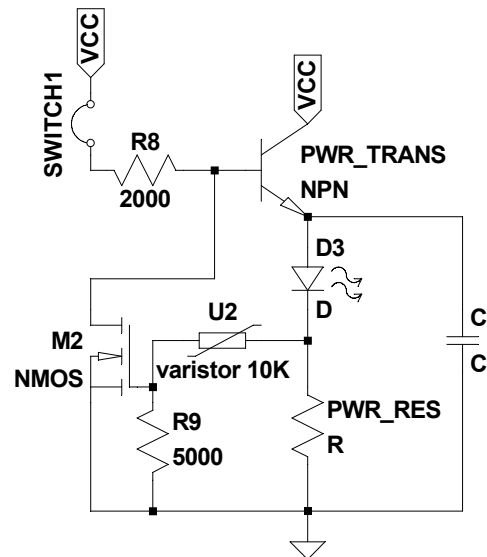
THIS CIRCUIT LIMITS THE CURRENT GOING THROUGH THE LEDS.
IT WORKS BY RECEIVING A 'HIGH' FROM THE SWITCH, WHICH ALLOWS
CURRENT TO FLOW THROUGH THE TRANSISTOR TO THE LED(S). THIS
CURRENT THEN PASSES THROUGH A RESISTOR TO GROUND.

AS CURRENT INCREASES, THE VOLTAGE ACROSS THIS RESISTOR WILL
ALSO INCREASE. THIS IS THE BASIS OF HOW THE CURRENT CONTROL
WORKS.

CONNECTED IN PARALLEL ACROSS THE RESISTOR IS A VOLTAGE DIVIDER
WITH A MOSFET IN THE MIDDLE. IF THE MOSFET'S GATE THRESHOLD IS
REACHED (SUFFICIENT CURRENT GOING THROUGH THE POWER RESISTOR,) IT
WILL ALLOW CURRENT THROUGH IT, PULLING DOWN THE BASE ON THE
POWER TRANSISTOR, WHICH CUTS CURRENT TO THE LED.

THIS DIVIDER CAN BE CONFIGURED BASED ON HOW THE VARISTOR IS SET,
THEREBY ALLOWING FINE-TUNING OF THE CURRENT LIMIT.

THE FUNCTION OF THE CAPACITOR IS TO SMOOTH THIS 'CHOPPY' INPUT
VOLTAGE/CURRENT ACROSS THE POWER LINE.



NOTE THAT THE PWR_RES MUST BE CONFIGURED
FOR EACH LINE AS A VOLTAGE OF 4V MUST BE
REACHED WHEN THE DESIRED CURRENT CROSSES
IT TO TRIGGER THE LIMITER.