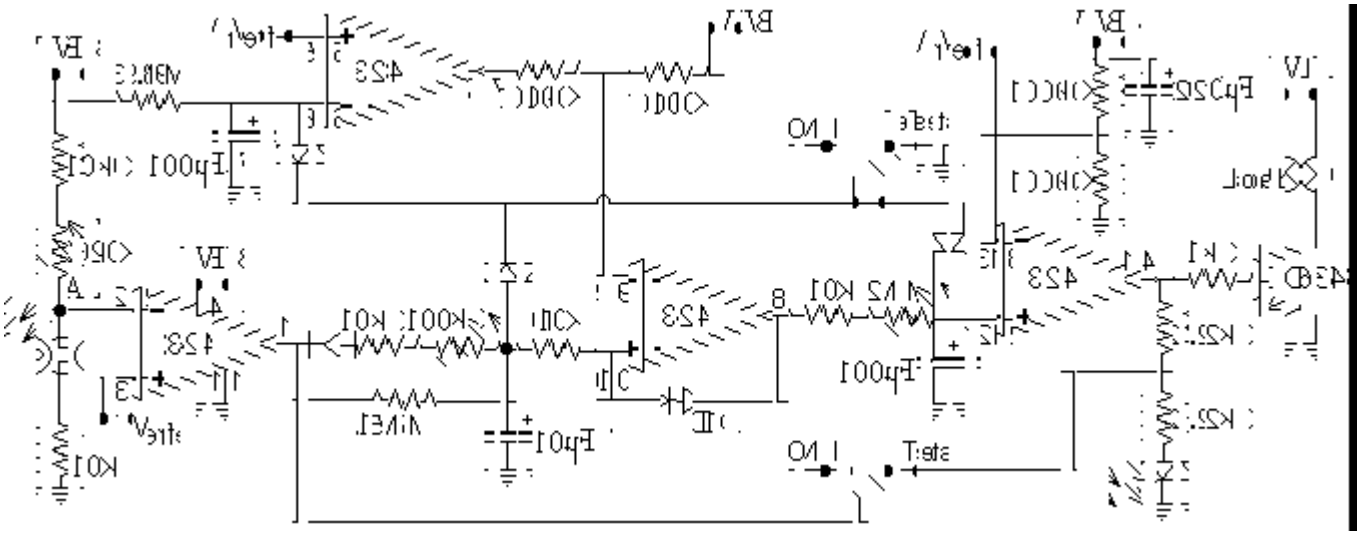
Light/Dark activated circuit with delay



The shown is a light activated circuit where VB can be 6V.
The photo resist and the variable resistor connected to should have the same max value with the series resistors connected to them nearly equal the half of this value.
It is recommended to use 100µF tantalum capacitors (instead of aluminum types).

Circuit analysis:

Light will lower the resistance of the photo resist and the 20KΩ variable determines the level of light (light sensitivity) at which 2 goes lower than 3 (generating a +ve pulse or pulses at 1).
In Test position of the DPST switch; this or these pulses will put the LED ON so that we can adjust the light sensitivity by watching the LED.
Note that the 10µF and 100µF capacitors are discharged so that D634 and Load cannot go ON (why?).
In ON position the upper 100µF is initially discharged; the voltage at 6 is zero, the voltage at 7 is approximately 5V and the voltage at 9 is more than 5V.
The voltage at 10 cannot exceed 5V; then 8,12 and 14 cannot go high (i.e. the Load cannot go ON).
After about 6 min.s (safety time); 6 goes higher than 5 putting 7 at 0V.
A proper light level (determined by 20KΩ variable) will put 1 high, the 10µF starts charging and after a delay period (trigger delay) 10 goes higher than 9;putting 8 high.
By the feedback diode D1; 10 goes higher than its last value and 8 is latched high.
The trigger delay is determined by the 100KΩ variable and determines the min. occurrence of the triggering light to activate the circuit (or latching 8 high).
Once activated; the LED, D634&the Load go ON after a delay period determined by the 2MΩ variable.
If we need to reactivate the safety time (after putting the switch to ON); put the switch to Test then to ON again.
For Dark activated circuit we should use a DPDT switch which will connect 3 to A and 2 to Vref instead of connecting 2 to A and 3 to Vref in this Light activated circuit.