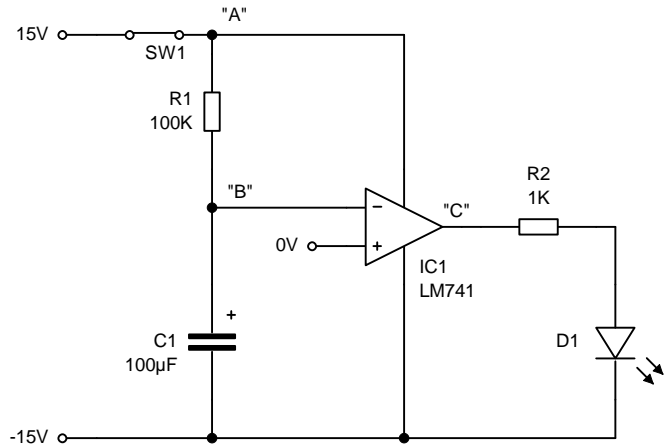


START UP TIMER

In the following circuit, when switch SW1 is closed, the LED lights an for a set amount of time and then goes out.



HELPFUL HINTS

- Output of a comparator depends on which input is highest.
- An Op-Amp saturates to within 2 volts of the supply rails.
- An LED drops 2 volts across it.

Answer the following, show ALL formulas used and ALL your working.

a) How many volts are across R2 when the LED is on?

b) Calculate the current in R2 when the LED is on.

c) Calculate how long the LED will stay on for.

d) Complete the timing diagram (left) for point B, and C

