

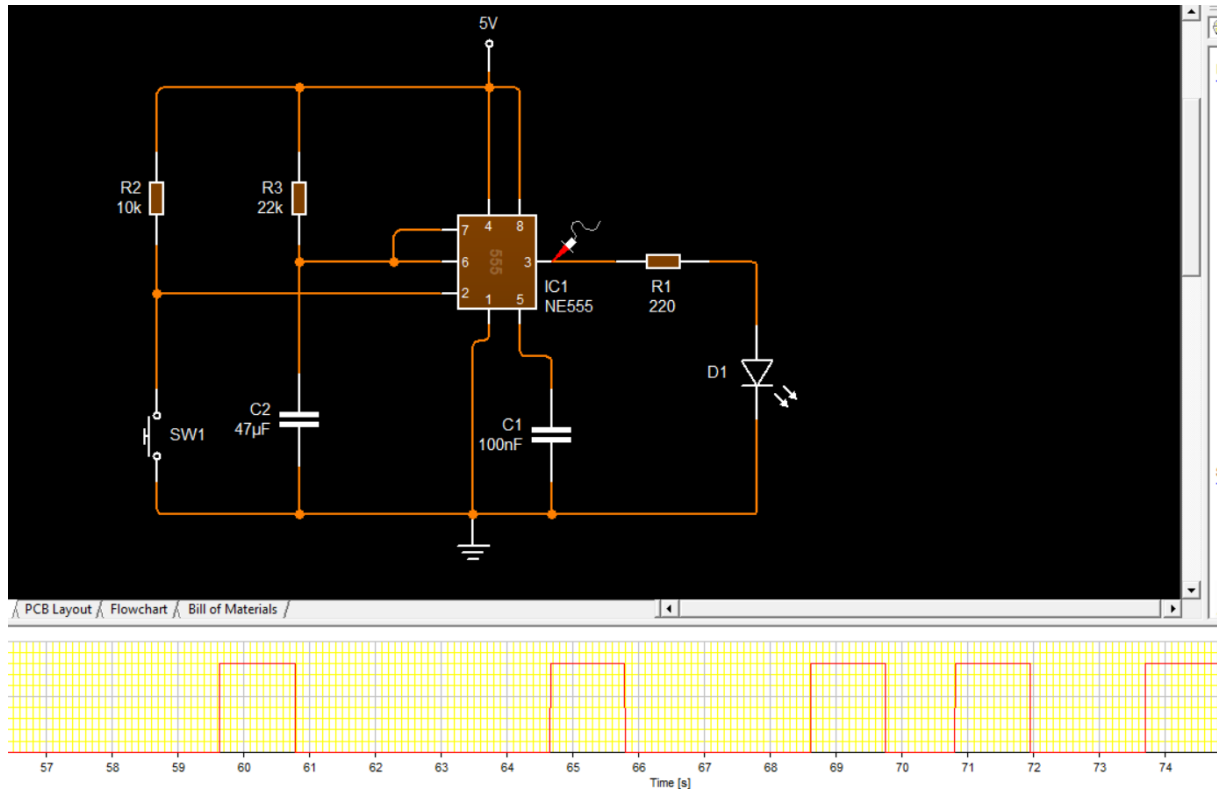
TIMER 555 and DRIVE

Timer 555 can deliver 200ma OUTPUT

Monostable timer

Monostable timer can deliver a signal for a periode of time the equation to fix the time as we want is

$$T = 1.1 * r * c$$



Here I choose a 22Kohm R3 and C2 47uf

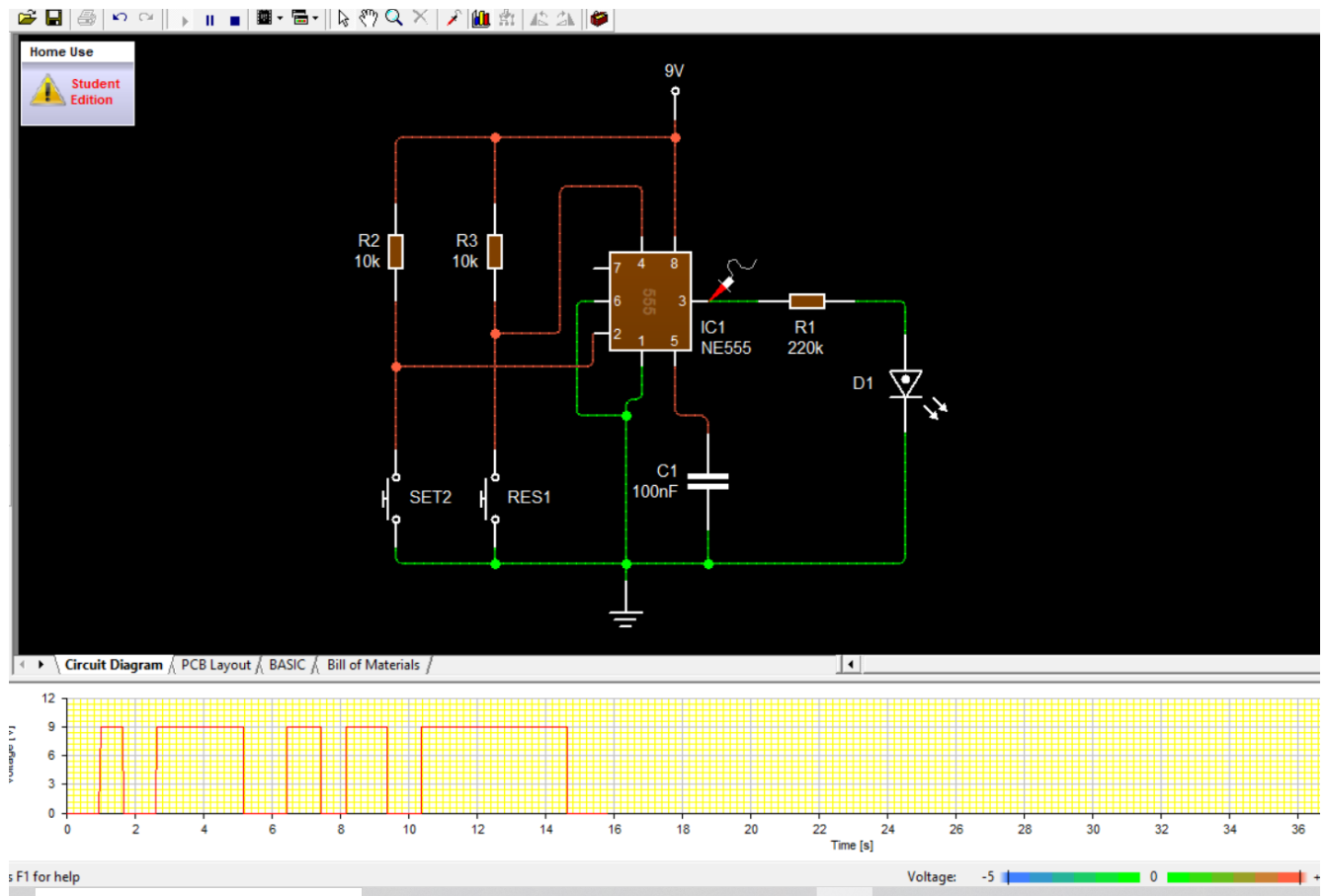
So $t = 1.1 \text{ s}$ as in the oscillo results

The r2 can be choosen as 10k

And 5v to make the timer work

Bistable timer

This timer works on a set and reset button and not very used and its called latch



Astable timer

This timer up and down automatically for a periode of time as frequency

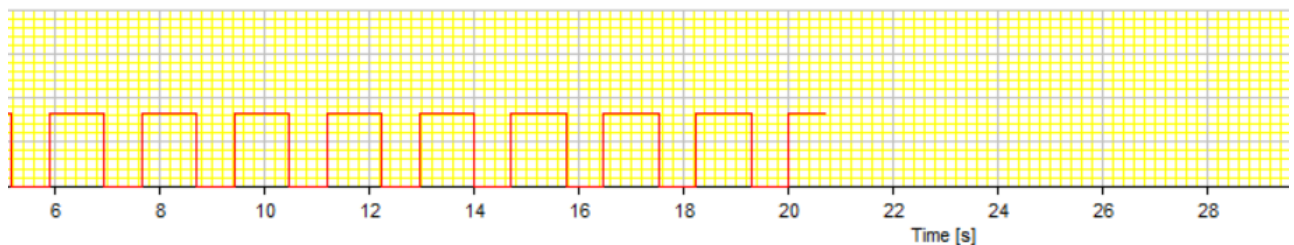
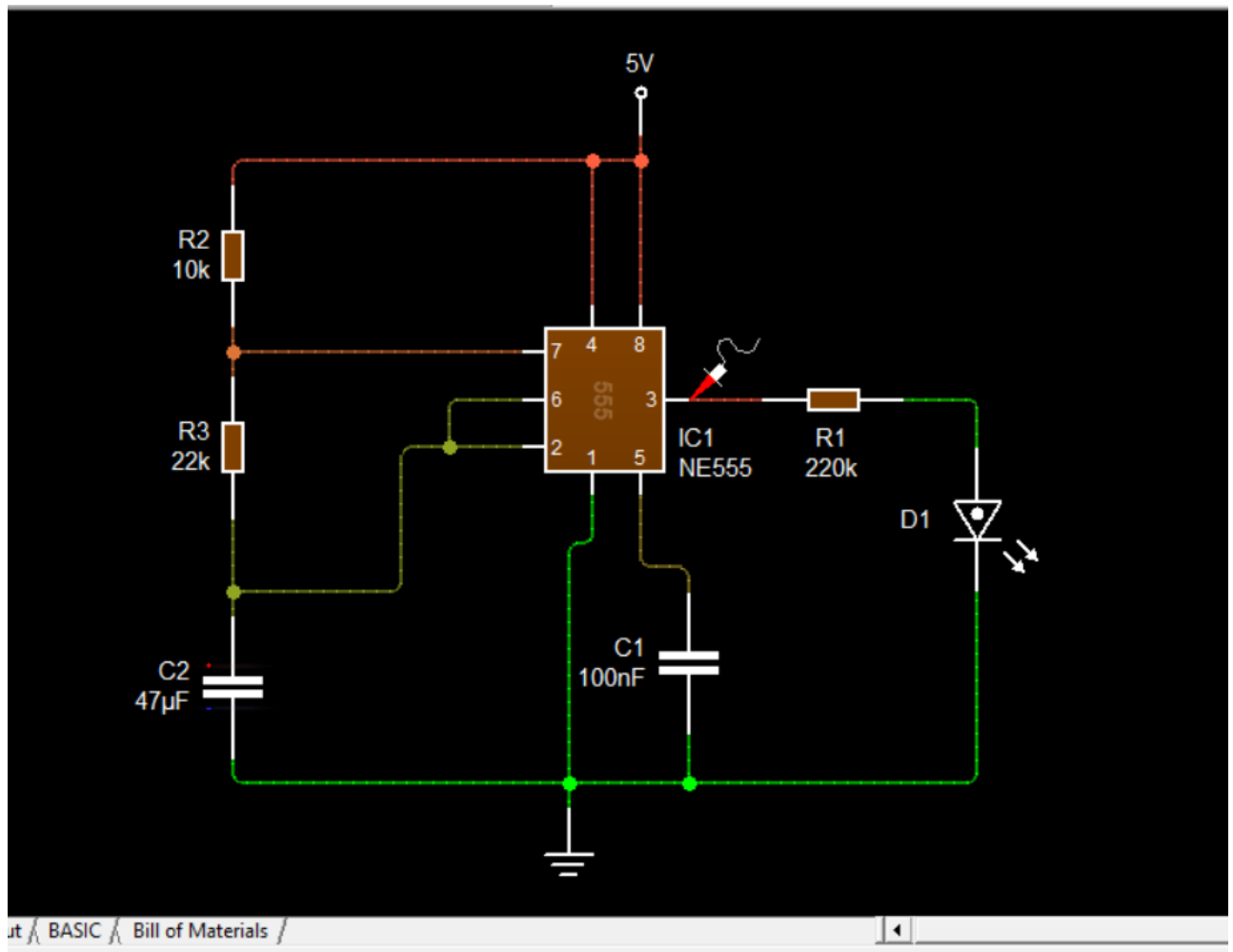
The calculation can determine the time of up and down

$$T_{on} = 0.693 (r_1 + r_2) * c$$

$$T_{off} = 0.693 * r_2 * c$$

$$T = t_1 + t_2$$

$$\text{Frequency} = 1 / t = 144 / (r_1 + 2 * r_2) * c$$



556 Timer contain 2 555 timer

We can use a transistor on the output to increase the 200ma for some loads who need more current

We can create dc to ac inverter with pnp and npn on the top and bottom of the output the increase up signal and down signal then connect it to a transformer