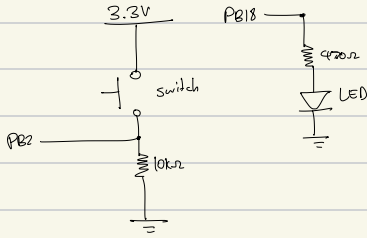


Neelke Rajesh
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Lab 2



LED operating point: $V_D = 1.7V$, $I_D = 2mA$

Switch not pressed: Input voltage on PB0 0V

Resistor current 0mA

Switch pressed: Input voltage on PB0 3.289V

Resistor Current $0.329mA$ $I = \frac{3.289}{10k}$

LED V_d (LED off): 0V

LED I_d (switch not pressed): $3.034mA$

LED V_d (LED on): 1.765V

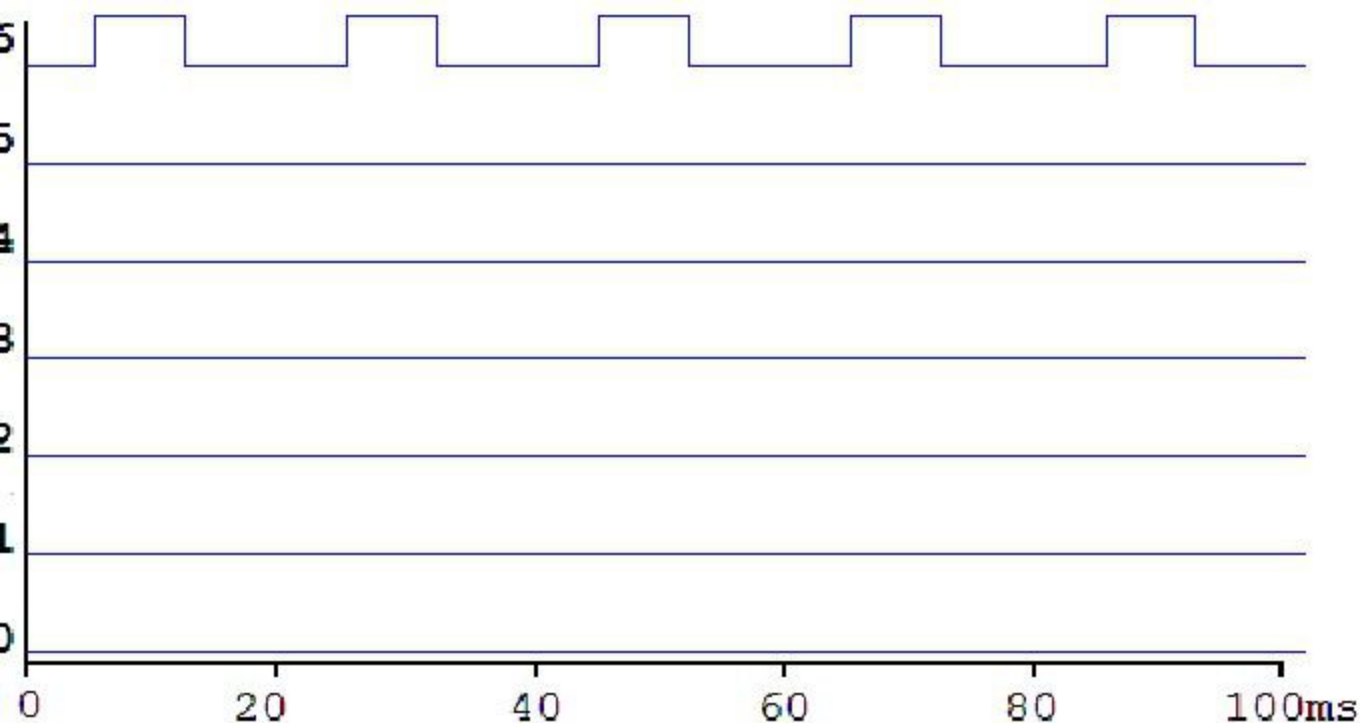
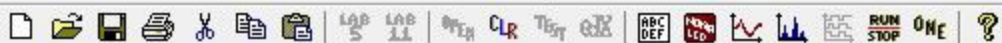
LED Power (LED on): 5.355mW

$$P = 1.765 \cdot 3.034 = 5.355$$

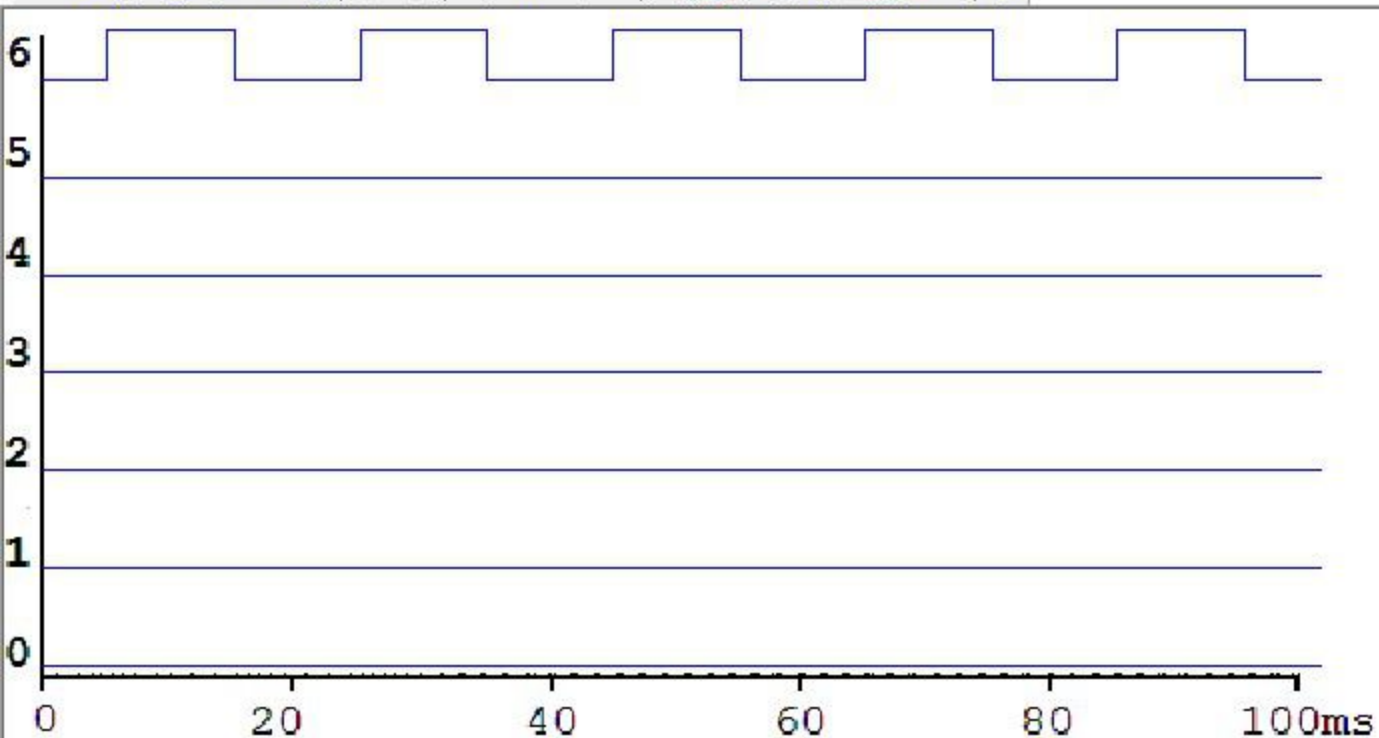
$$Current_{LED} = Current_{470\Omega}$$

$$V_{470\Omega} = 1.426V$$

$$I_{470\Omega} = \frac{1.426}{470} = 3.034mA$$



	Period	Freq	MinLow	MaxLow	MinHigh	MaxHigh
Ch6:	20.2	49.5	13.1	13.2	7.0	7.1
Ch5:						
Ch4:						
Ch3:						
Ch2:						
Ch1:						
Ch0:						
	(ms)	(Hz)	(ms)	(ms)	(ms)	(ms)



	Period	Freq	MinLow	MaxLow	MinHigh	MaxHigh
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Ch6:	20.2	49.5	10.1	10.2	10.1	10.1
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Ch5:

Ch4:

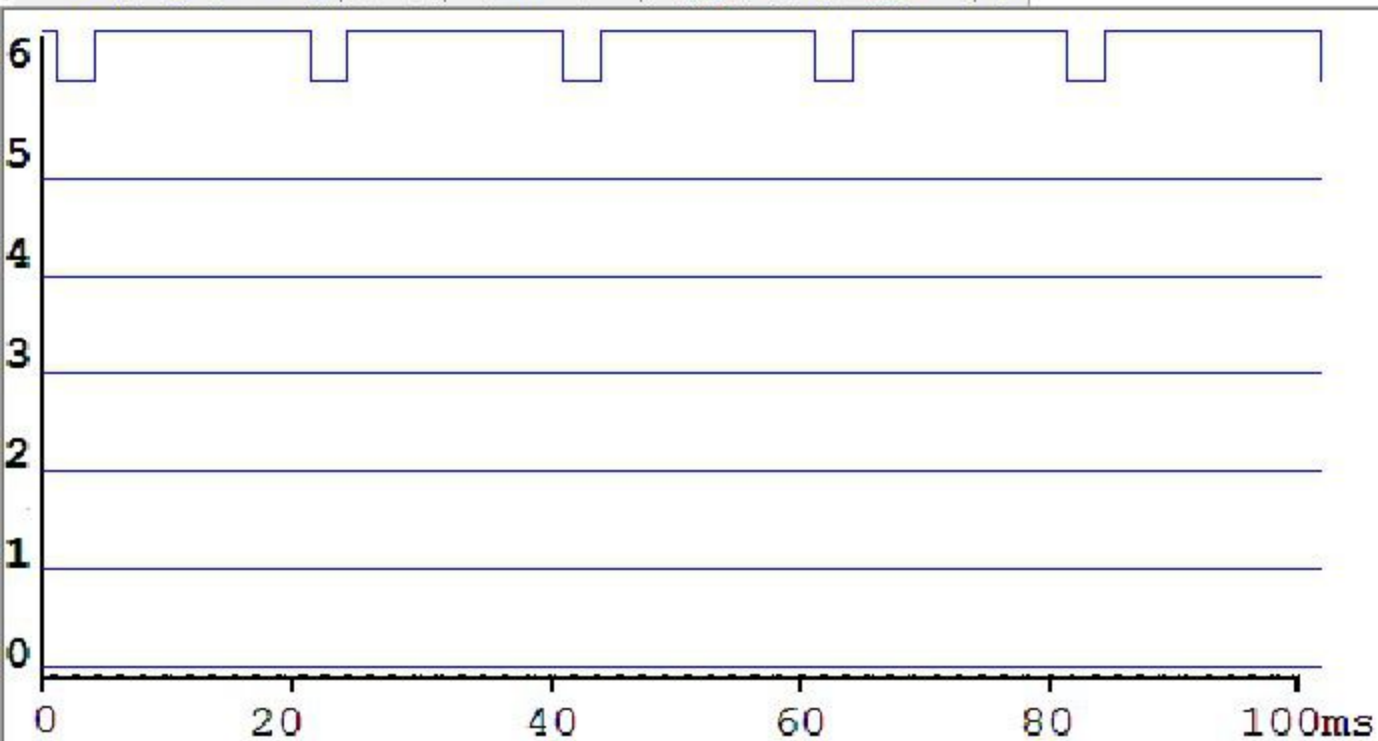
Ch3:

Ch2:

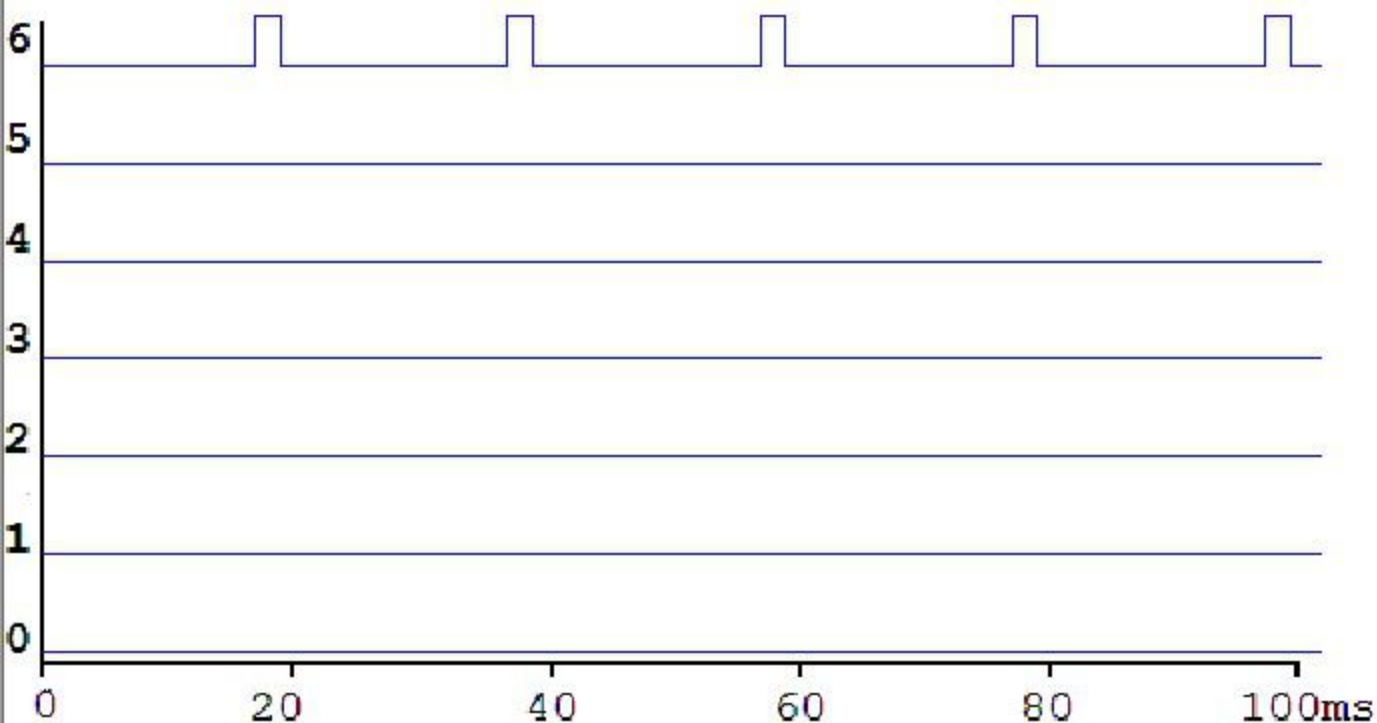
Ch1:

Ch0:

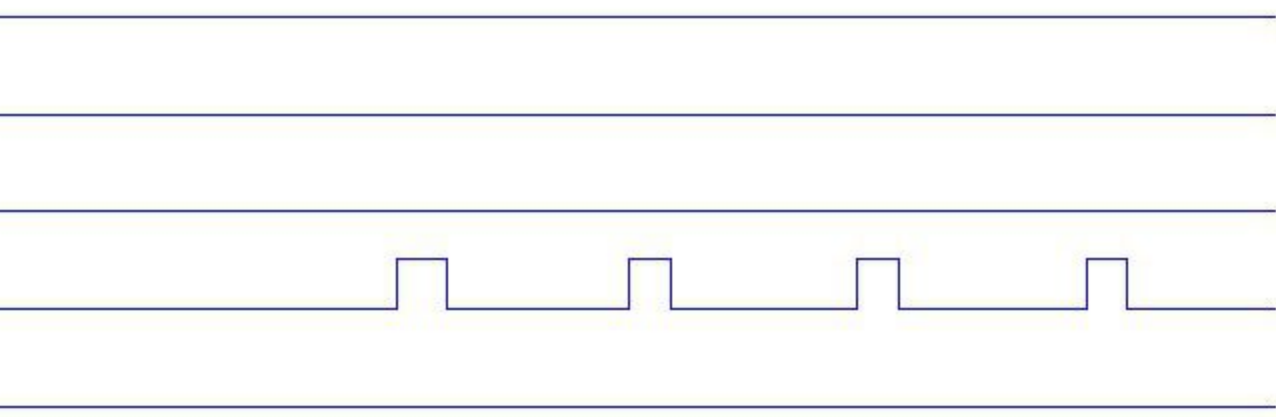
(ms)	(Hz)	(ms)	(ms)	(ms)	(ms)
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	Period	Freq	MinLow	MaxLow	MinHigh	MaxHigh
Ch6:	20.2	49.5	3.0	3.0	17.2	17.2
Ch5:						
Ch4:						
Ch3:						
Ch2:						
Ch1:						
Ch0:						
	(ms)	(Hz)	(ms)	(ms)	(ms)	(ms)



	Period	Freq	MinLow	MaxLow	MinHigh	MaxHigh
Ch6:	20.2	49.5	18.2	18.2	2.0	2.0
Ch5:						
Ch4:						
Ch3:						
Ch2:						
Ch1:						
Ch0:						
	(ms)	(Hz)	(ms)	(ms)	(ms)	(ms)



	0	640	1280	1920	2560	3200ms
	Period	Freq	MinLow	MaxLow	MinHigh	MaxHigh
Ch6:	21.5	46.4	3.0	131.7	2.0	17.2
Ch5:						
Ch4:						
Ch3:						
Ch2:	588.9	1.7	465.1	478.2	104.0	132.7
Ch1:						
Ch0:						
	(ms)	(Hz)	(ms)	(ms)	(ms)	(ms)

Student EID= NR25992

Running the grader

10,34,49,84, Perfect, Score=25

End of Lab 2, Spring 2025

