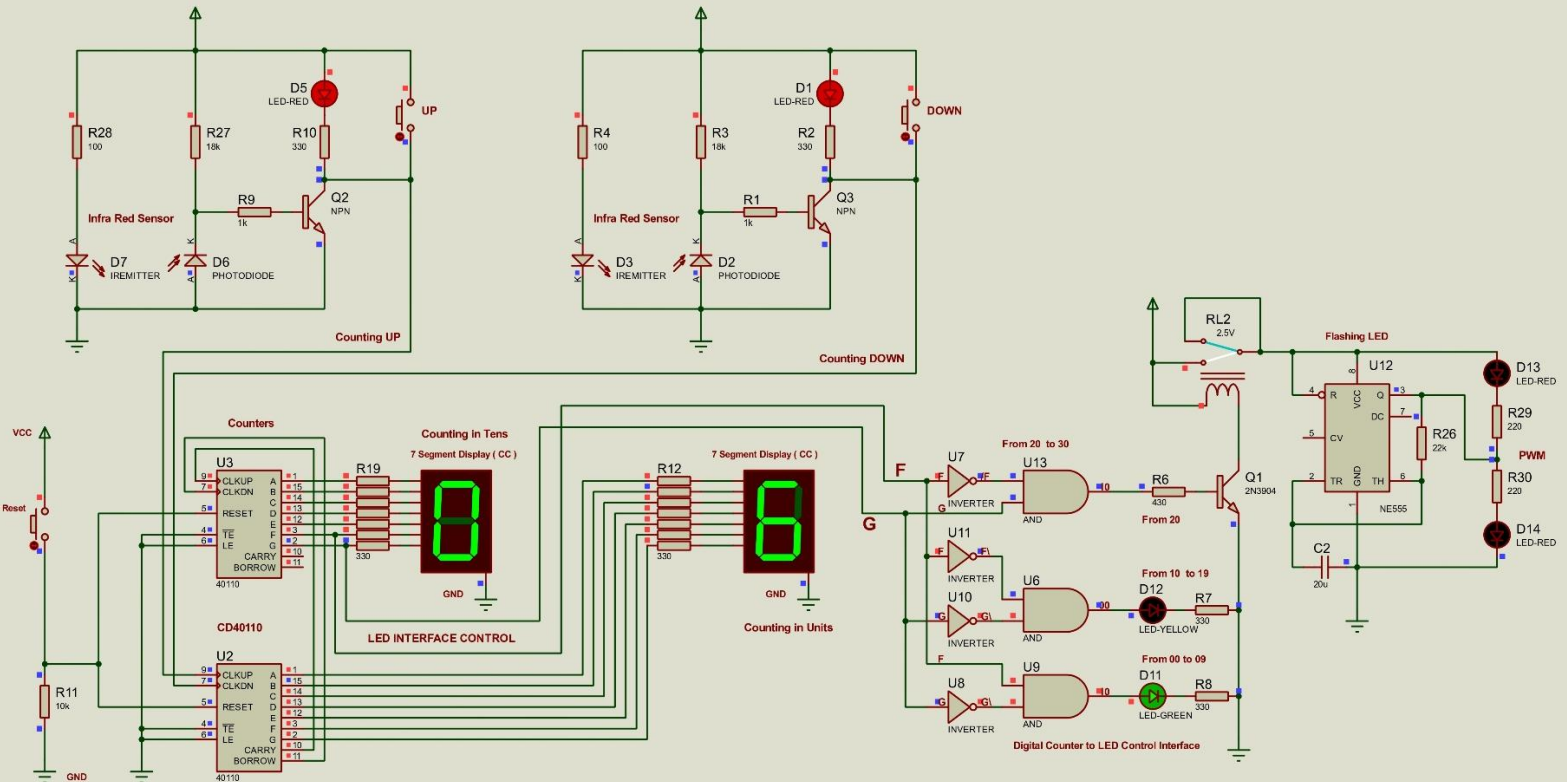
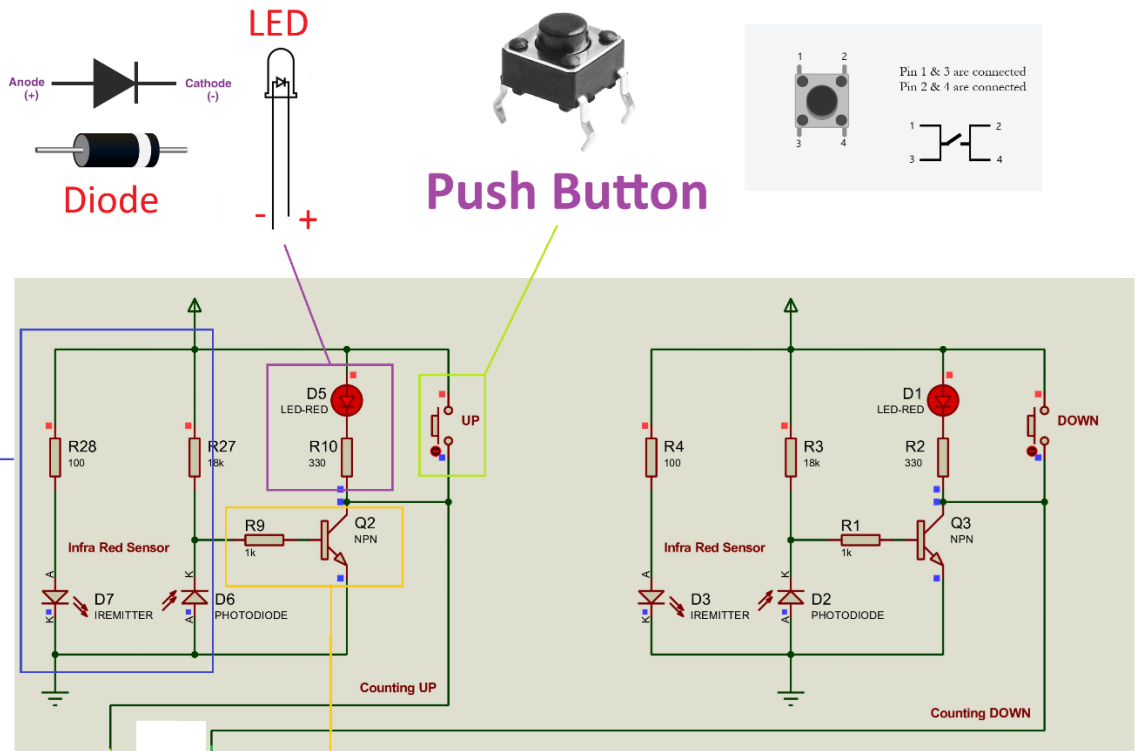


Complete simulation



Part 1 – Input & Output Parking Detector

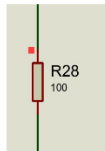
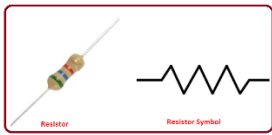


No Obstacle
OBSTACLE

IR SENSOR

+3.5V
0V

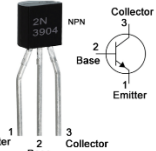
RESISTOR



SWITCH

ON
OFF

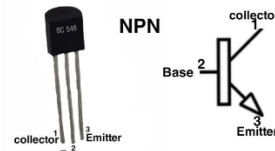
2N3904



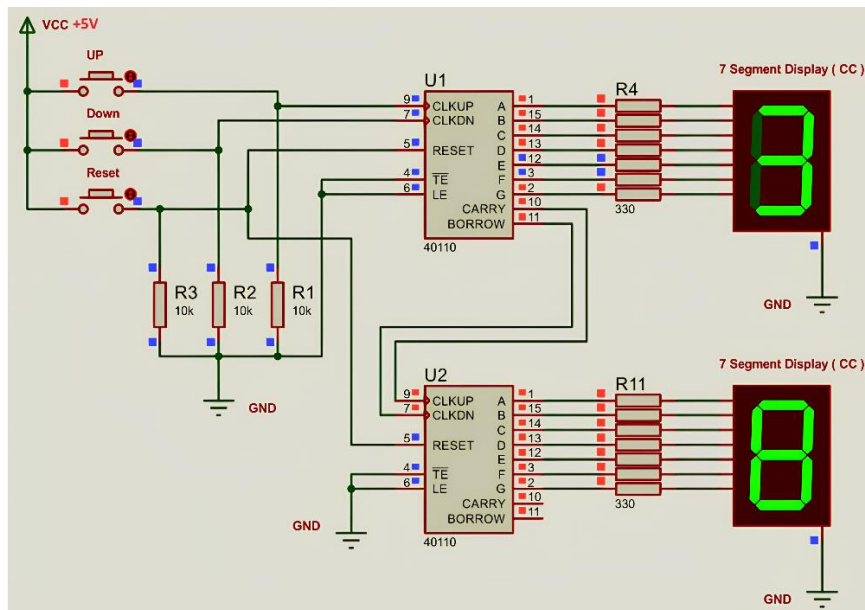
OR

BC548

Transistor



Part 2 – Counters Display



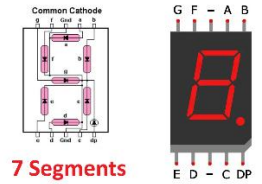
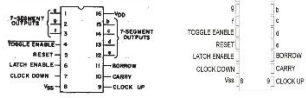
Push Button

CD40110 Datasheet

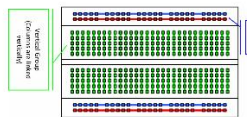
Data Sheet

Decade Up/Down Counter

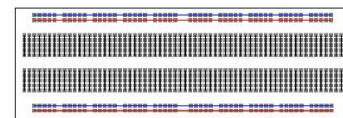
CD40110 Pinout



7 Segments
Common Cathodes



Small BreadBoard



BreadBoard

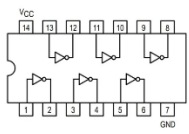
Part 3 – Control Led Status

gf	LED Logic	LED Color
01	GREEN	Green
00	YELLOW	Yellow
10	RED	Red

SECOND COUNTER
CD40110BE
GF - OUTPUT
COUNTER IN TEN

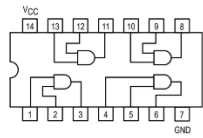
INVERTER

74LS04 Pinout



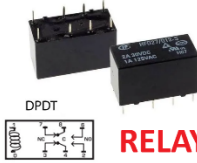
Not Gate

74LS08 Pinout



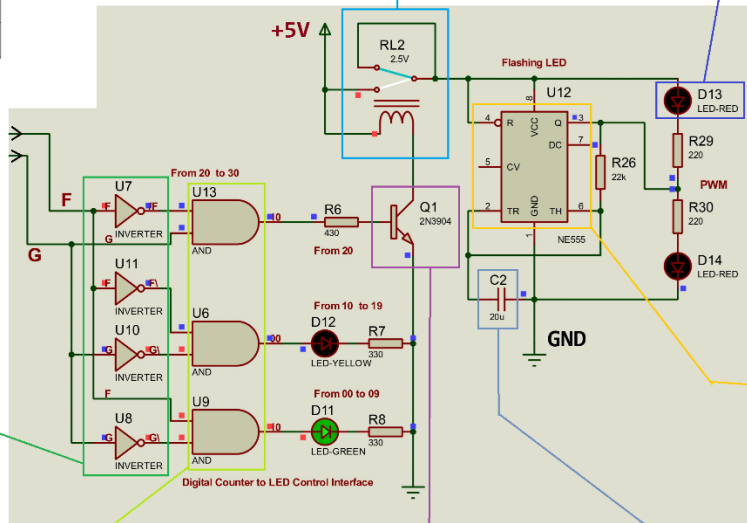
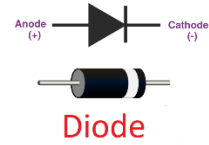
AND Gate

A	B	Q
0	0	0
0	1	0
1	0	0
1	1	1

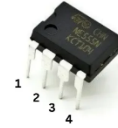


DPDT (Double Pole Double Throw)

LED

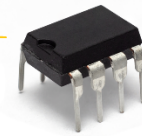


NE555 Pinout



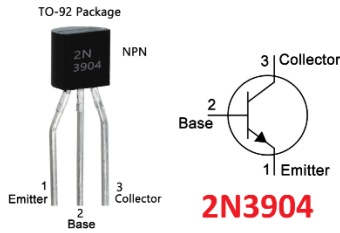
Pin	Function
1	Ground
2	Trigger
3	Output
4	Reset
5	Control
6	Threshold
7	Discharge
8	Vcc

555 Timer Pinout



Pin	Function
1	Ground
2	Trigger
3	Output
4	Reset
5	Control
6	Threshold
7	Discharge
8	VCC

2N3904 Transistor Pinout



Capacitor
Electrolytic
20 Microfarad



Important Hardware Components

