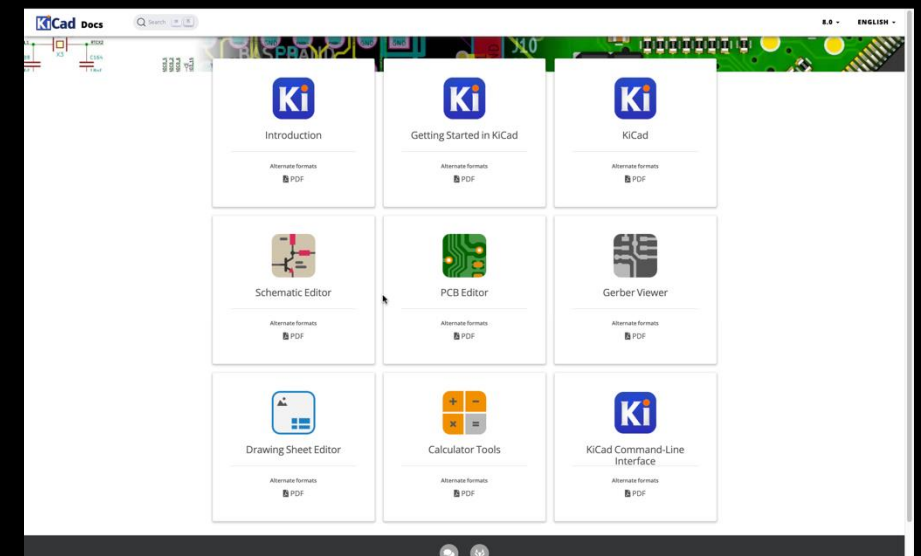


# Month of Tech : PCB-designing

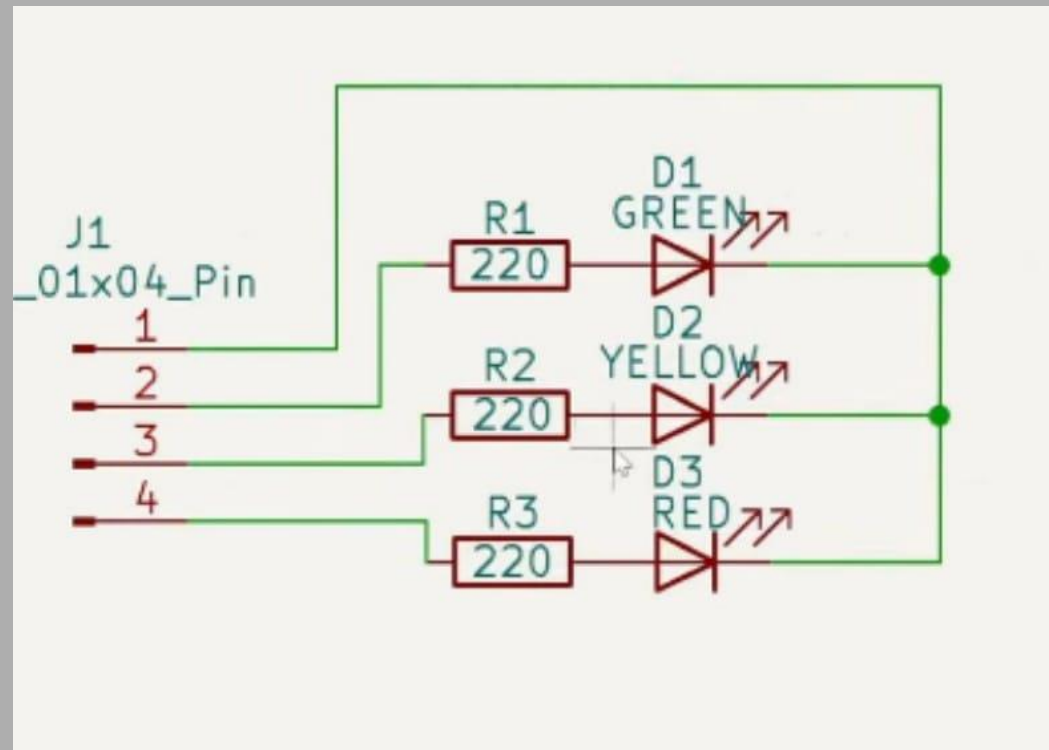


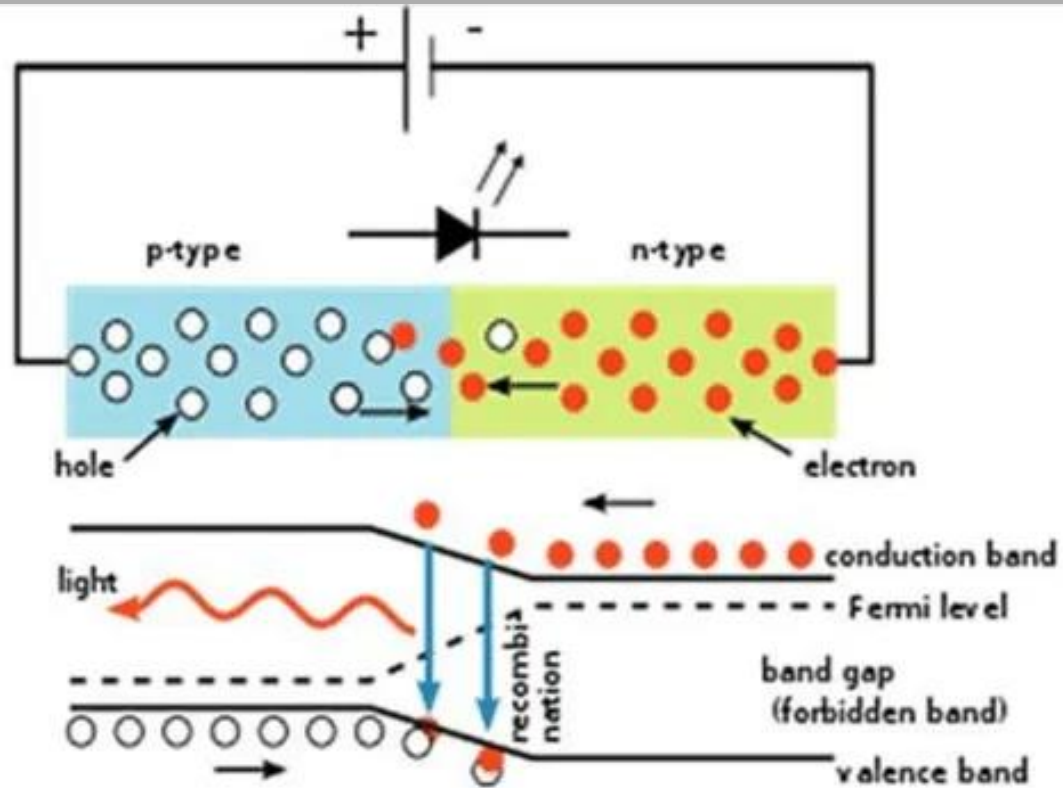
PCB Design 101:  
From Schematic to Prototype  
**HANDS ON SESSION.**

Explore and Learn: Workshop for Beginners



# SCHEMATIC DIAGRAM





Working of LED

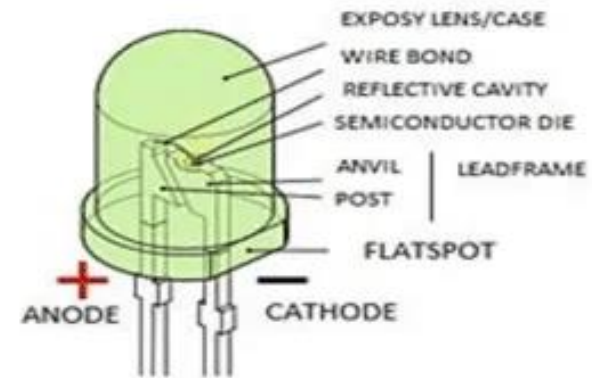
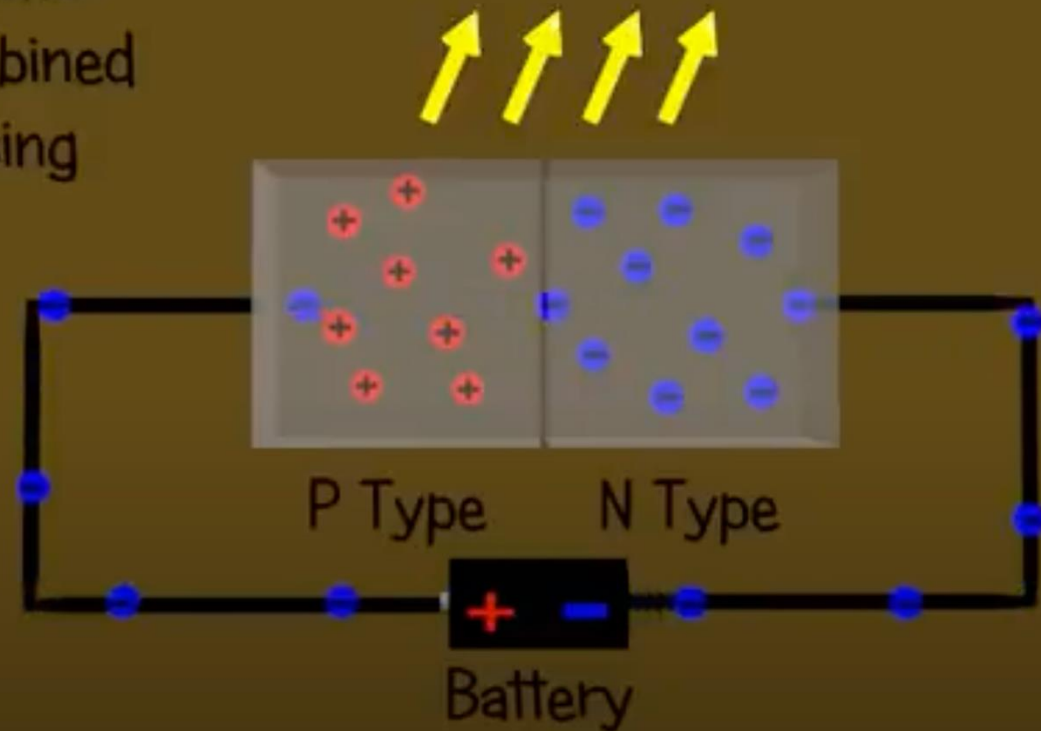


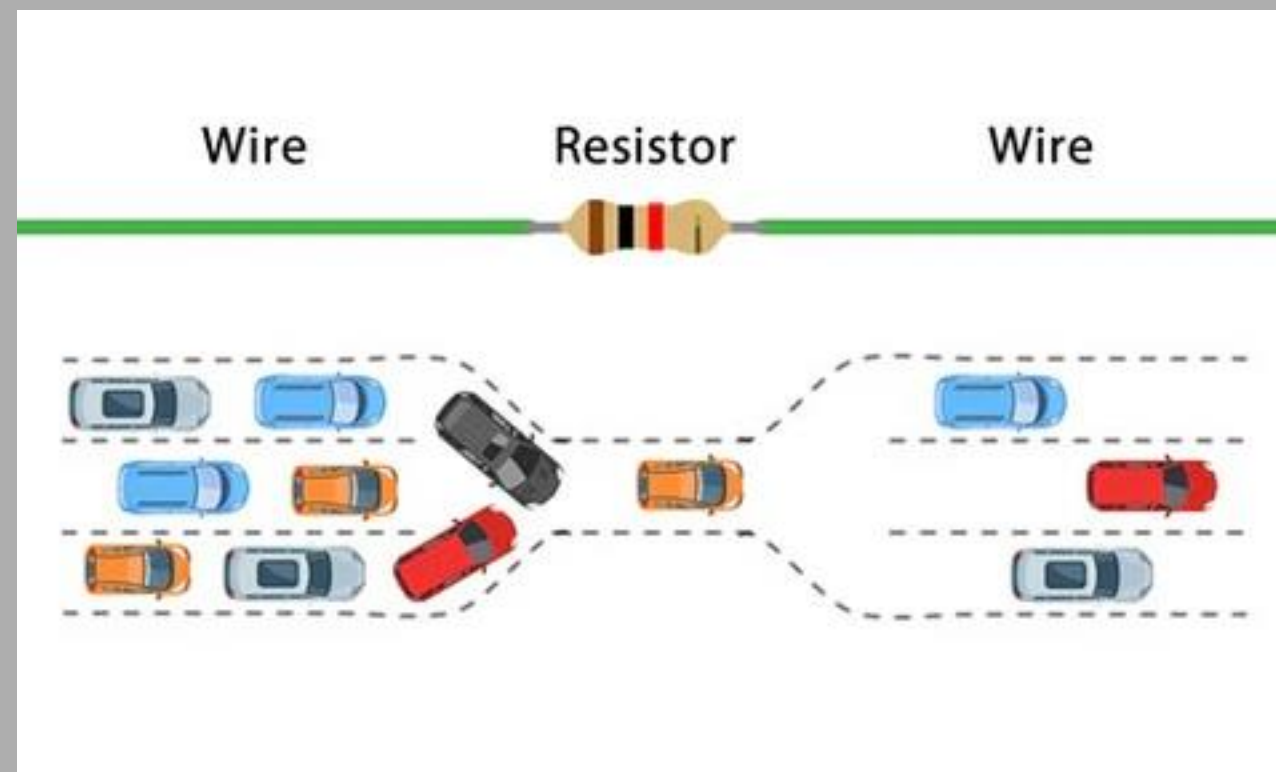
Diagram of LED

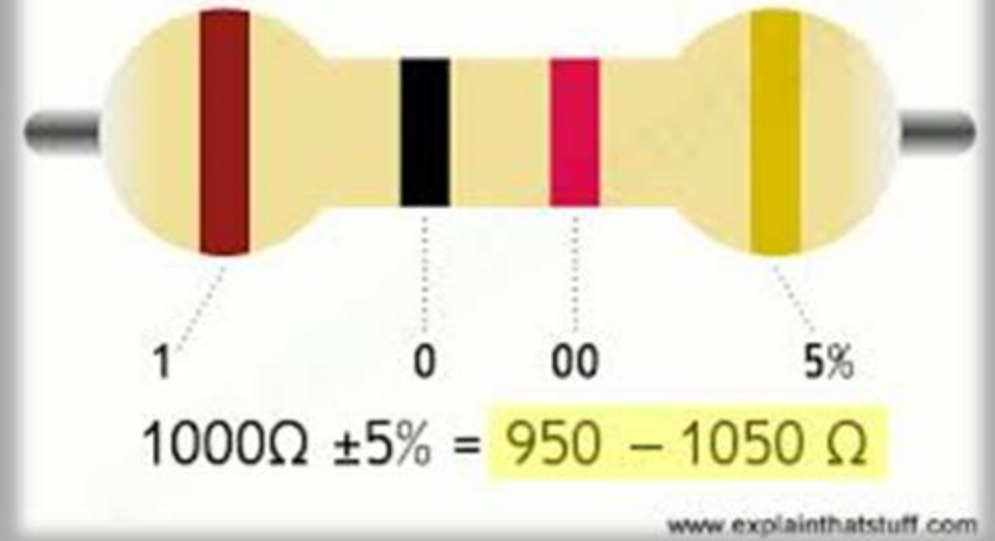
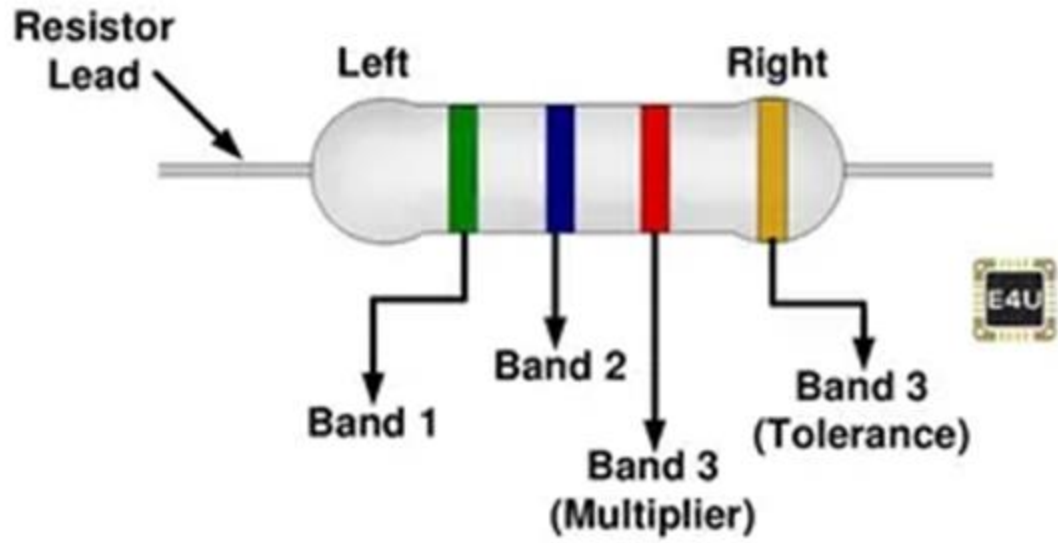


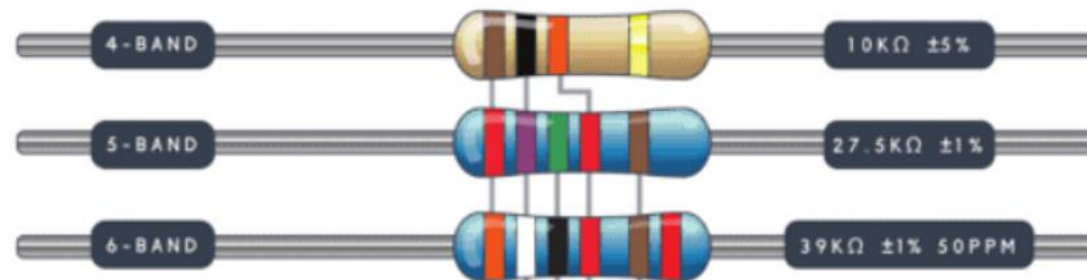
# Semiconductor

The electrons  
are recombined  
and releasing  
photons









DIGITS 1-3	BLACK	0
	BROWN	1
	RED	2
	ORANGE	3
	YELLOW	4
	GREEN	5
	BLUE	6
	VIOLET	7
	GRAY	8
	WHITE	9

MULTIPLIER	SILVER	0.01
	GOLD	0.1
	BLACK	1
	BROWN	10
	RED	100
	ORANGE	1K
	YELLOW	10K
	GREEN	100K
	BLUE	1M
	VIOLET	10M

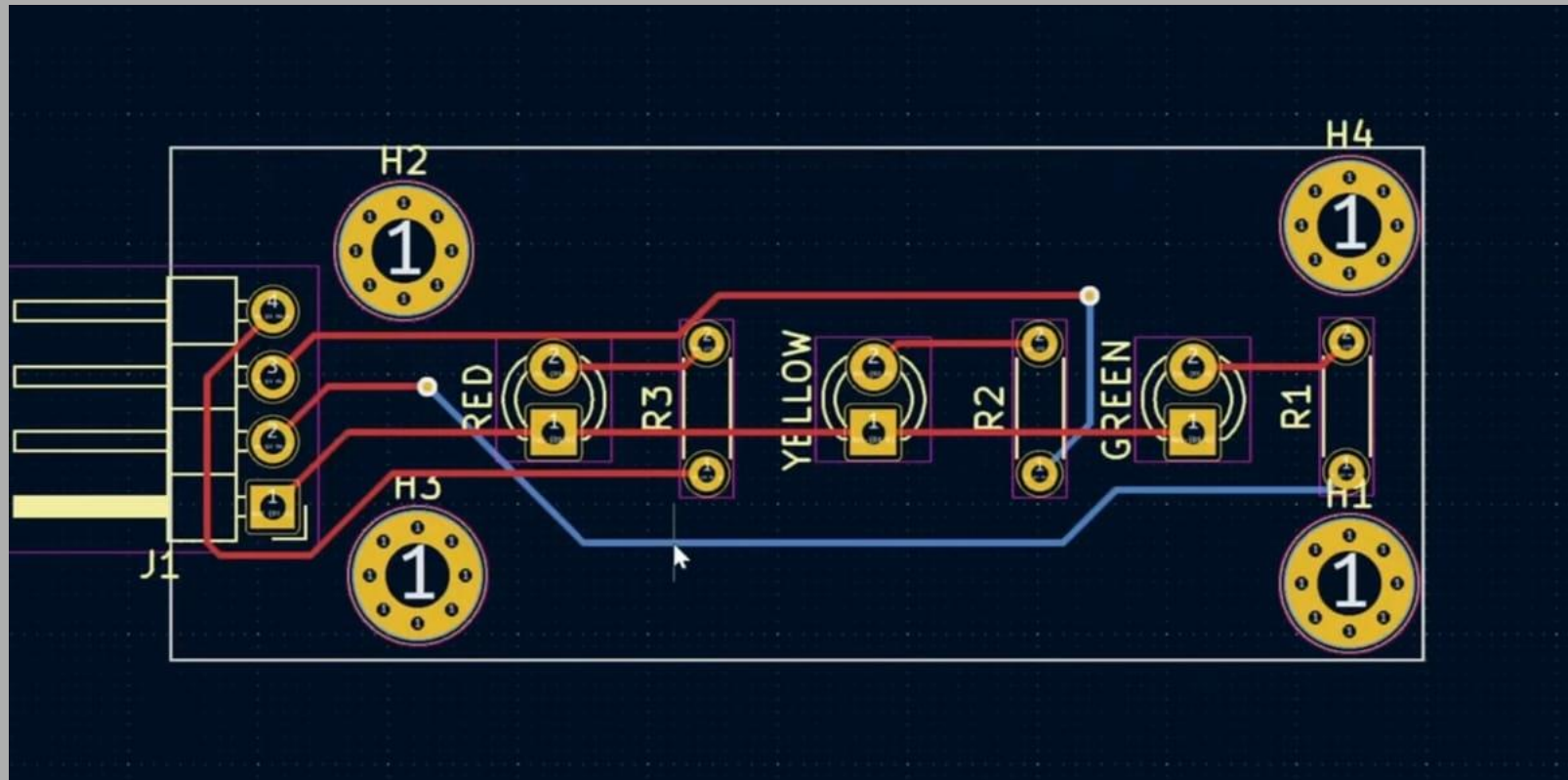
  

TOLERANCE	SILVER	±10%
	GOLD	±5%
	BROWN	±1%
	RED	±2%
	GREEN	±0.5%
	BLUE	±0.25%
	VIOLET	±0.1%

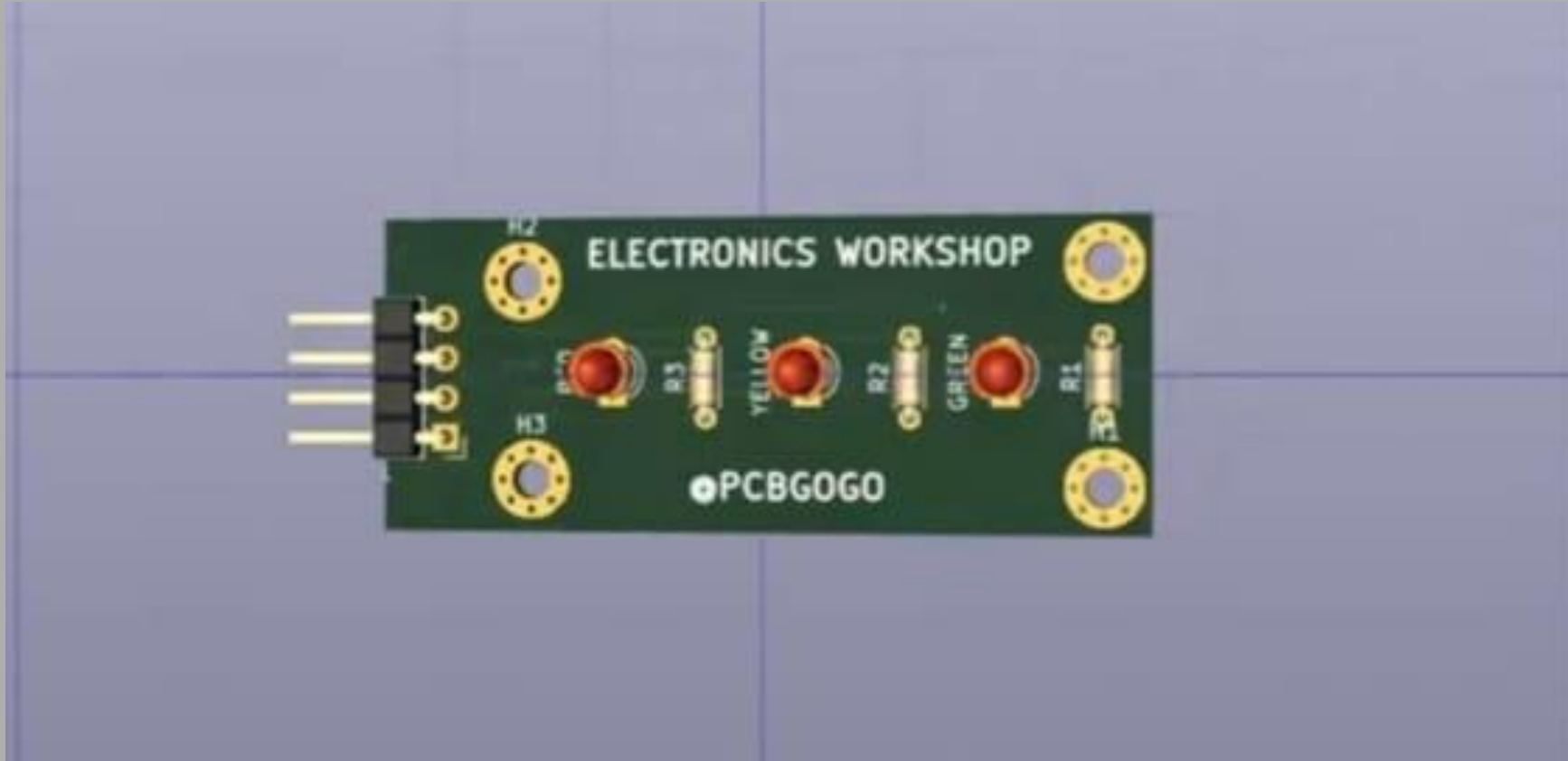
TEMPERATURE COEFFICIENT	BROWN	100PPM
	RED	50PPM
	ORANGE	15PPM
	YELLOW	25PPM

# FOOTPRINT DIAGRAM





# PCB LAYOUT



# TRAFFIC LIGHTS



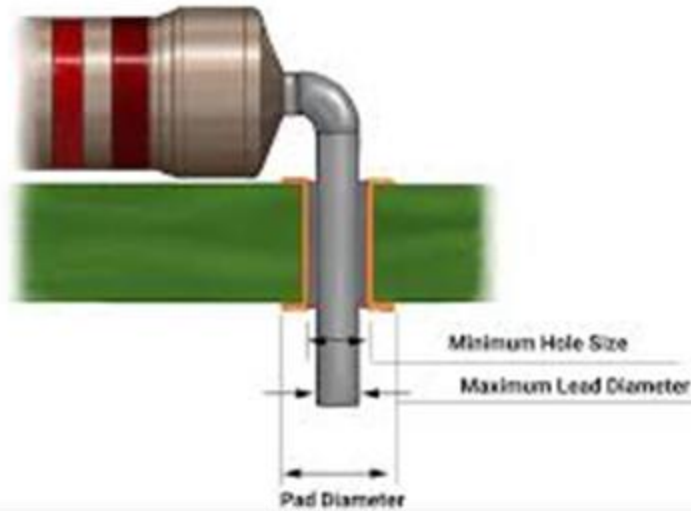
Red means STOP.  
Color the light at the top  
red.

Yellow means WAIT.  
Color the light in the  
middle yellow.

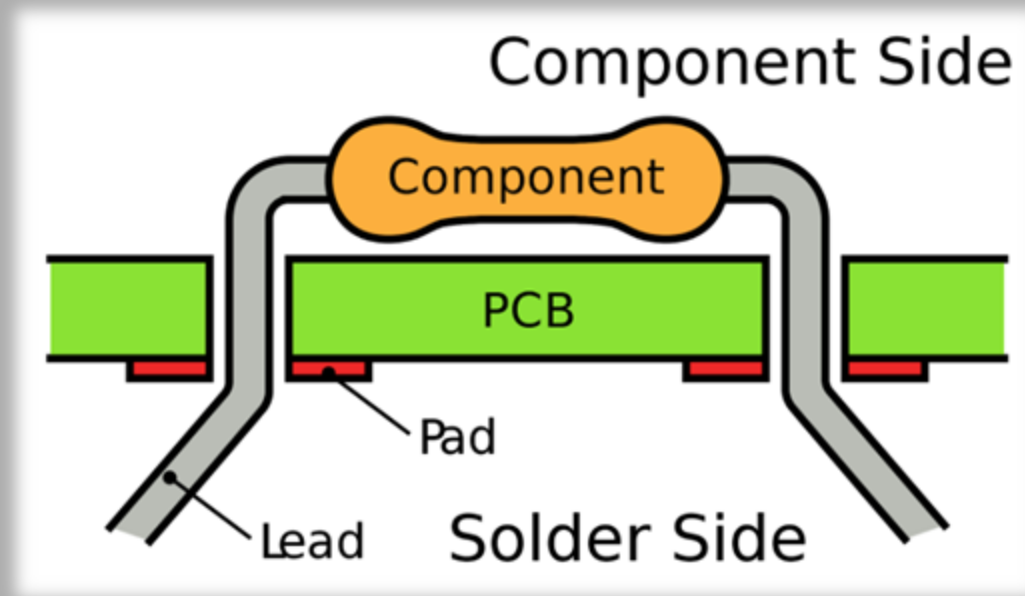
Green means GO.  
Color the light at the  
bottom green.

Reference	Value	Footprint	Qty
D1	GREEN	LED_THT:LED_D3.0mm	1
D2	YELLOW	LED_THT:LED_D3.0mm	1
D3	RED	LED_THT:LED_D3.0mm	1
J1	Conn_01x04_Pin	Connector_PinHeader_1.00mm:PinHeader_1x04_P1.00mm_Horizontal	1
R1	220	Resistor_THT:R_Axial_DIN0204_L3.6mm_D1.6mm_P5.08mm_Horizontal	1
R2	220	Resistor_THT:R_Axial_DIN0204_L3.6mm_D1.6mm_P5.08mm_Horizontal	1
R3	220	Resistor_THT:R_Axial_DIN0204_L3.6mm_D1.6mm_P5.08mm_Horizontal	1

# THROUGH HOLE ■ MOUNTING TYPE

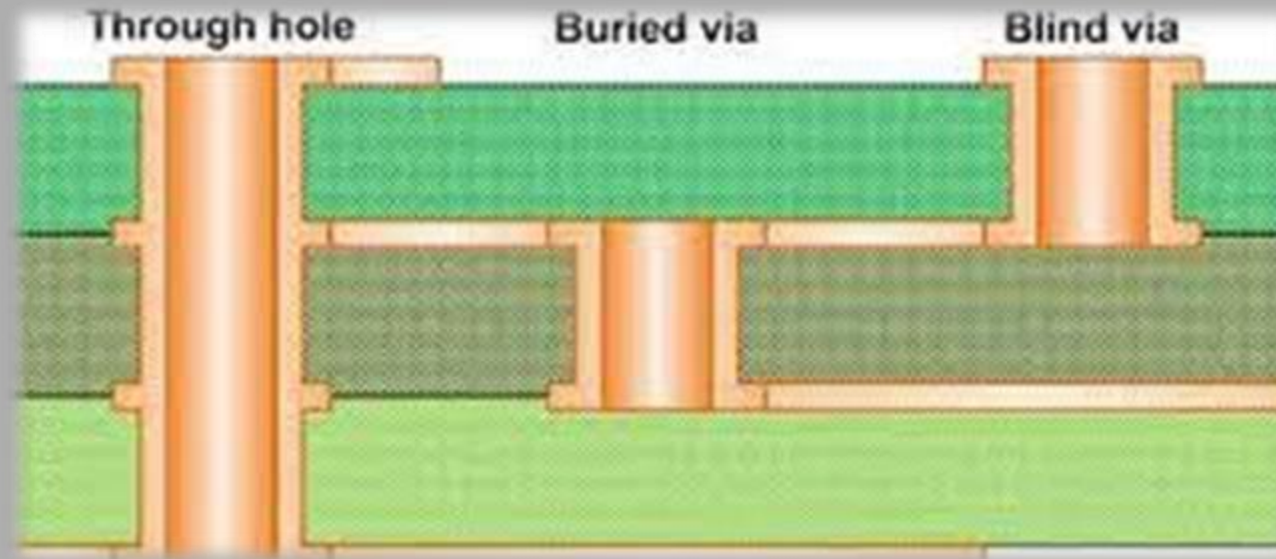


# THROUGH HOLE ■ MOUNTING TYPE

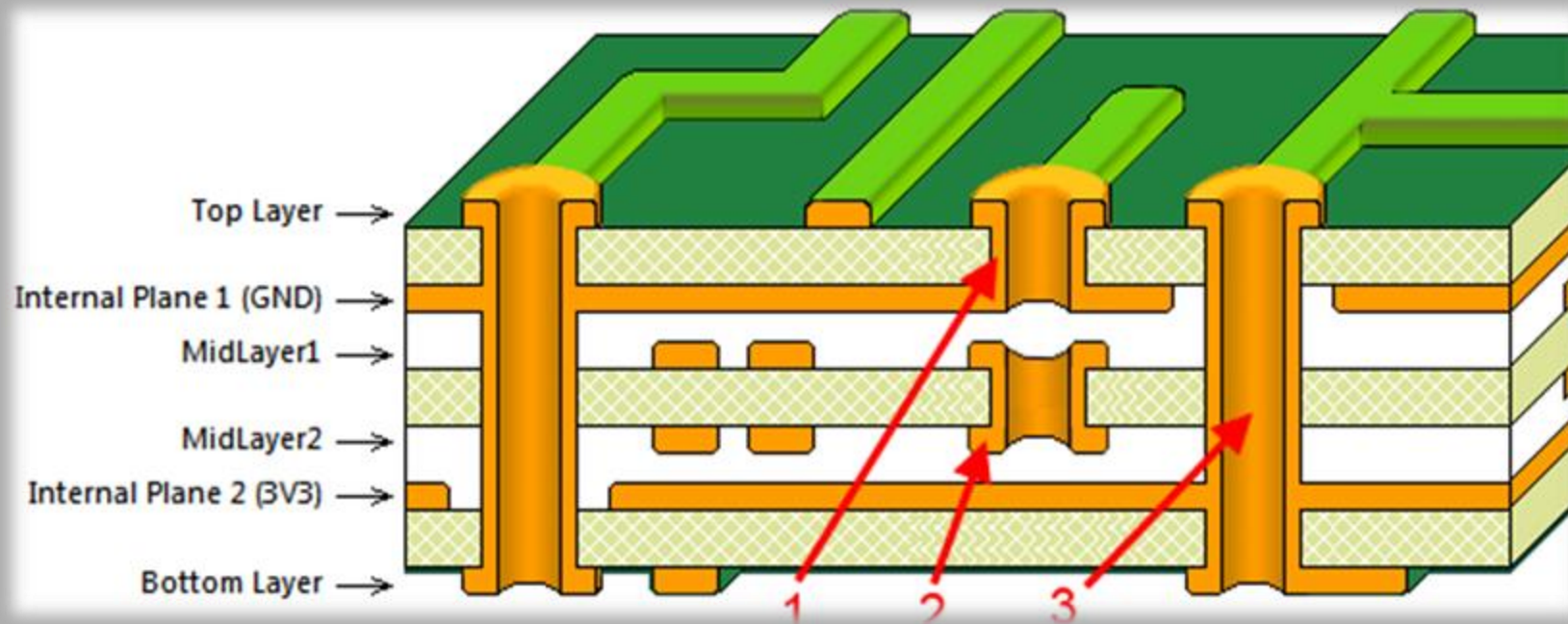




# THROUGH HOLE ■ MOUNTING TYPE



# THROUGH HOLE ■ MOUNTING TYPE



# CONNECTORS | PIN



# RESISTORS

