Experiment No 3 & 14: Practically implement the cross wired cable and the straight cable using the crimping tool

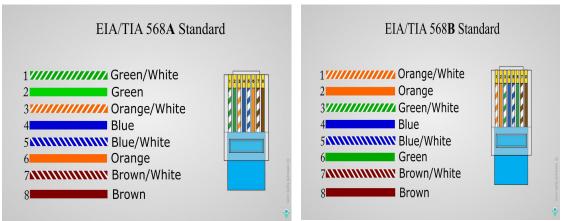
Materials Required:

- 1. Cat cable
- 2. RJ-45 connectors
- 3. Crimping tool



- Each colored wire is twisted with white wire with a strip of same color on it.
- There are 4 twisted pairs with four different colored wires.
- Only Two pairs are used with cable numbers 1, 2, 3, and 6 for Tx and Rx signals.

• As per EIA(Electronic Industries association) and TIA(Telecommunication Industry Association) there are two standard EIA/TIA-568-A and EIA/TIA-568-B.



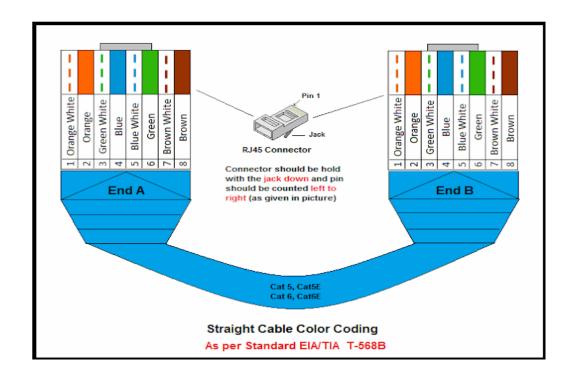
Straight Cable

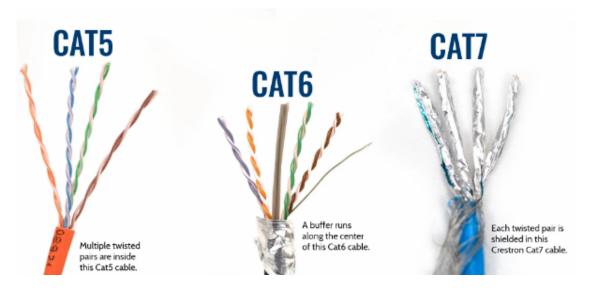
Used to connect devices with different function.

- •Connecting a router to a hub or switch.
- •Connecting a server to a hub or switch.
- •Connecting workstations to a hub.

Left	1	Tx+		 	 Rx+	1	Left
	2	Tx-			Rx-	2	
	3	Rx+	_	 	 Tx+	3	
	4					4	
	5					5	
	6	Rx-			Тх-	6	
	7					7	
Right	8					8	Right

Straight Cable

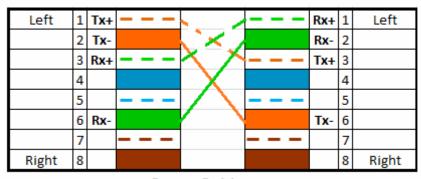




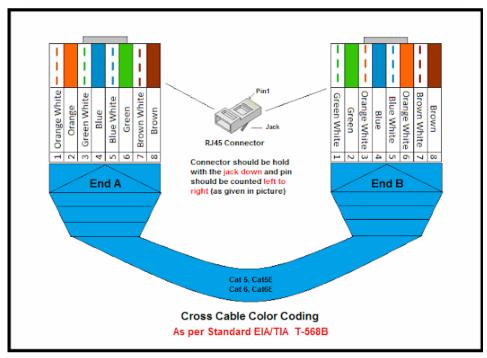
Cross Cable

Used to connect devices with same functions or roles

- •Connecting uplinks between switches.
- •Connecting PC to PC
- •Connecting PC to a Router
- •Connecting 2 routers together



Cross Cable



Steps:

- 1. Connect the straight cable and cross cable using the above standards.
- 2. Insert the wires in the RJ-45 connectors.
- 3. Crimp the RJ-45 using the Crimping tool