



Experiment1.1

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Semester: 5

Subject Name: Computer Networks

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1. Aim:

Study of different types of Network cables & their Color coding and practically implement the cross-wired cable and straight through cable using crimping tool.

2. Requirements:

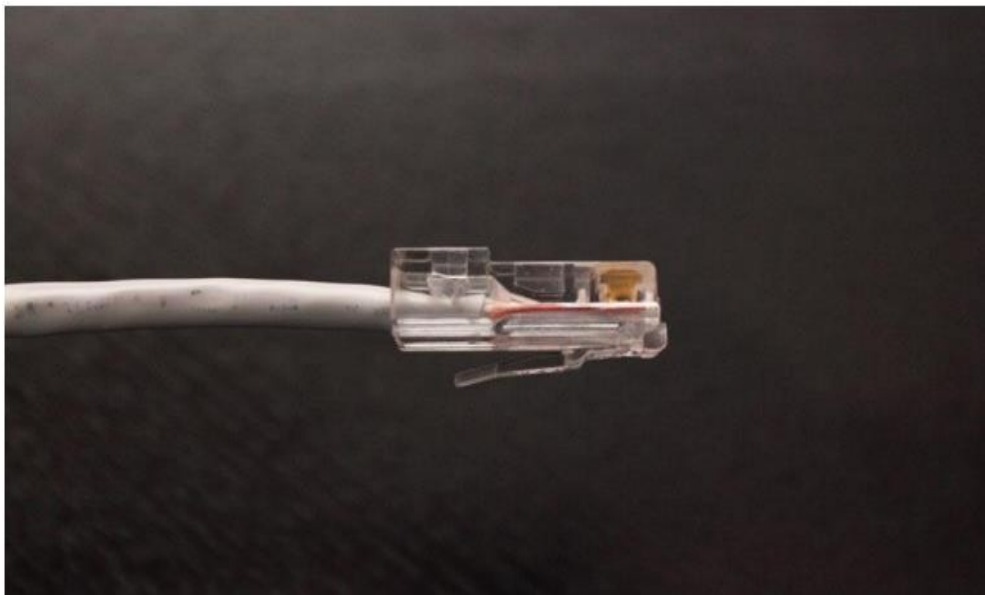
RJ-45 connector, Crimping Tool, Twisted pair Cable.









3. Procedure:

1. Strip the cable jacket about 1.5 inch down from the end.
2. Spread the four pairs of twisted wires apart. For Cat 5e cables, use the pull string to strip the jacket further down if needed, and then cut the pull string. For Cat 6 cables, cut the spine inside the cable.
3. Untwist the wire pairs and align them neatly in the T568B orientation. Make sure not to untwist the wires any further down the cable than where the jacket begins, to maintain as much of the twist as possible.
4. Cut the wires as straight as possible, about 0.5 inch above the end of the jacket
5. Carefully insert the wires all the way into the modular connector, making sure that each wire passes through the appropriate guides inside the connector
6. Insert the connector into the crimping tool and squeeze the crimper all the way down.
7. Repeat steps 1-6 for the opposite end of the cable.

8. To ensure you've successfully terminated each end of the cable, use a cable tester to check each pin. When you're finished, the connectors should look like this:

4. Output:



RJ45 Pin # (END 1)	Wire Color	Diagram End #1	RJ45 Pin # (END 2)	Wire Color	Diagram End #2
1	White/Orange		1	White/Green	
2	Orange		2	Green	
3	White/Green		3	White/Orange	
4	Blue		4	White/Brown	
5	White/Blue		5	Brown	
6	Green		6	Orange	
7	White/Brown		7	Blue	
8	Brown		8	White/Blue	

5. Learning Outcome:

1. Learned how to strip the cable jacket.
2. Learned how to separate and untwist wire pairs.
3. To align wires in the order.
4. Insert wires into an RJ45 connector and crimp it.
5. Learned how to use a cable tester to verify the connections.