Name:Bhoumik Shah
1032220072
SY AI/DS
Roll number: 3

DCN EXPT12:

Create desired standard network cable including cross cable and test by tester :

Creating a standard network cable, including a crossover cable, involves using specific color-coding schemes for the Ethernet cables and connectors. Here's a guide to create both cables, along with testing them using a cable tester:

Materials Needed:

• *Ethernet cables (CAT5e, CAT6, etc.):*

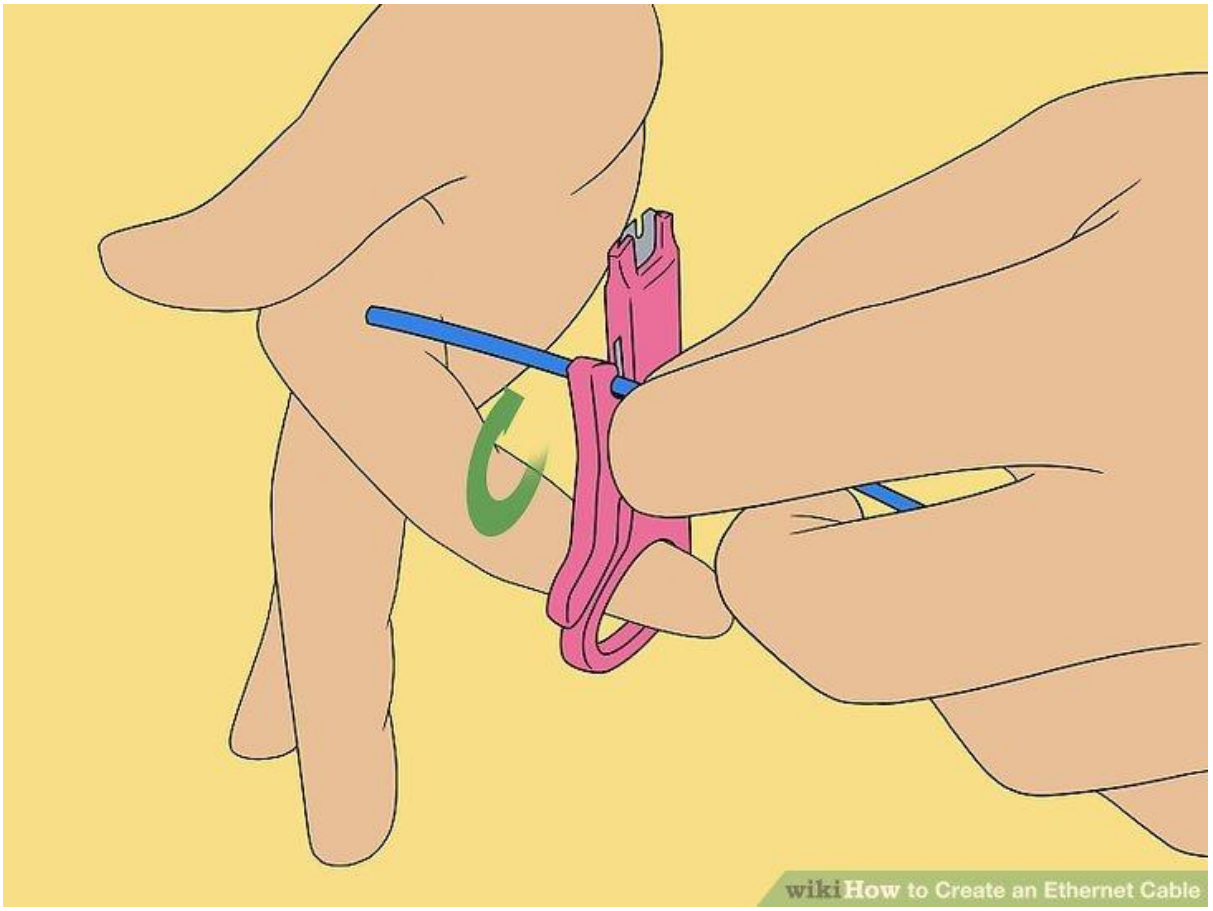
• *RJ45 connectors:*

• *Crimping tool:*

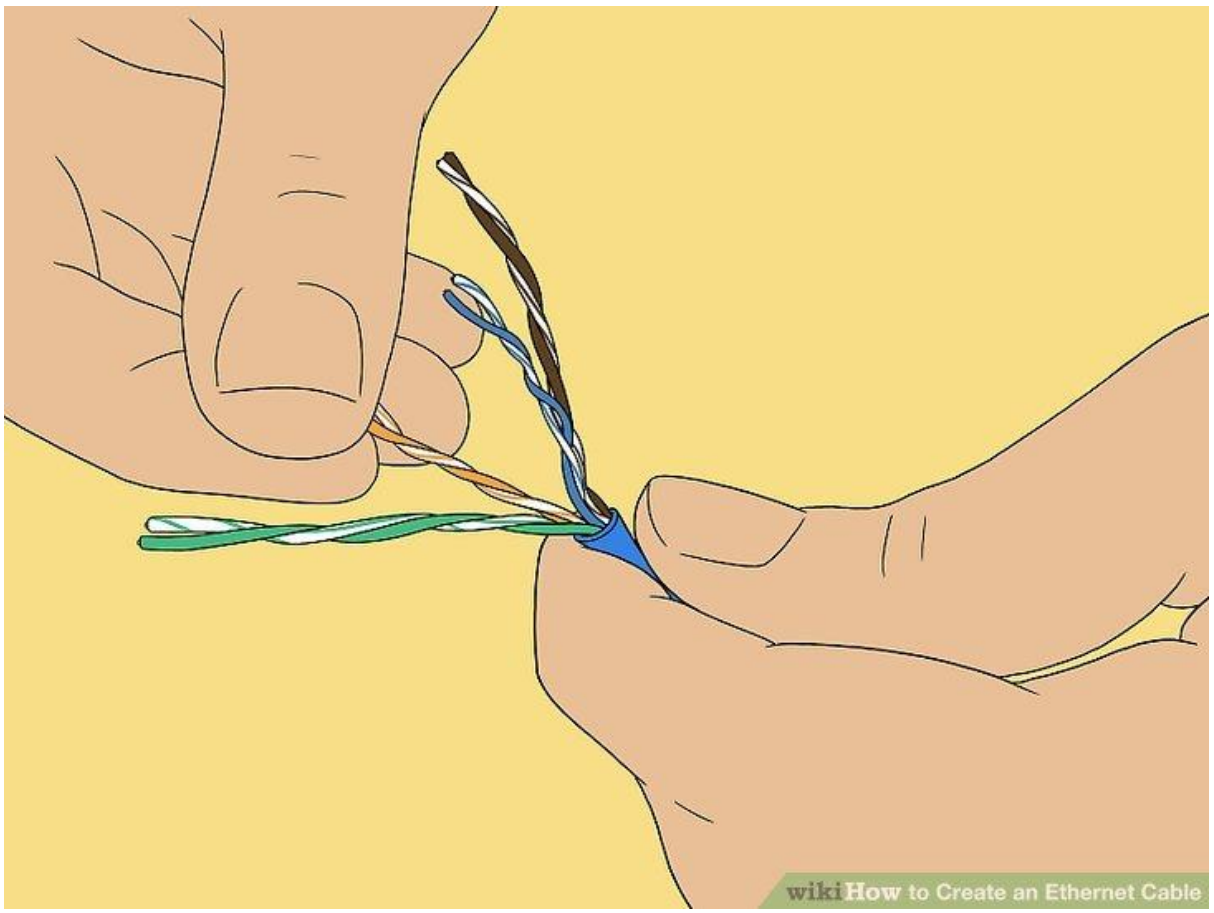
• *Cable tester:*

Steps:

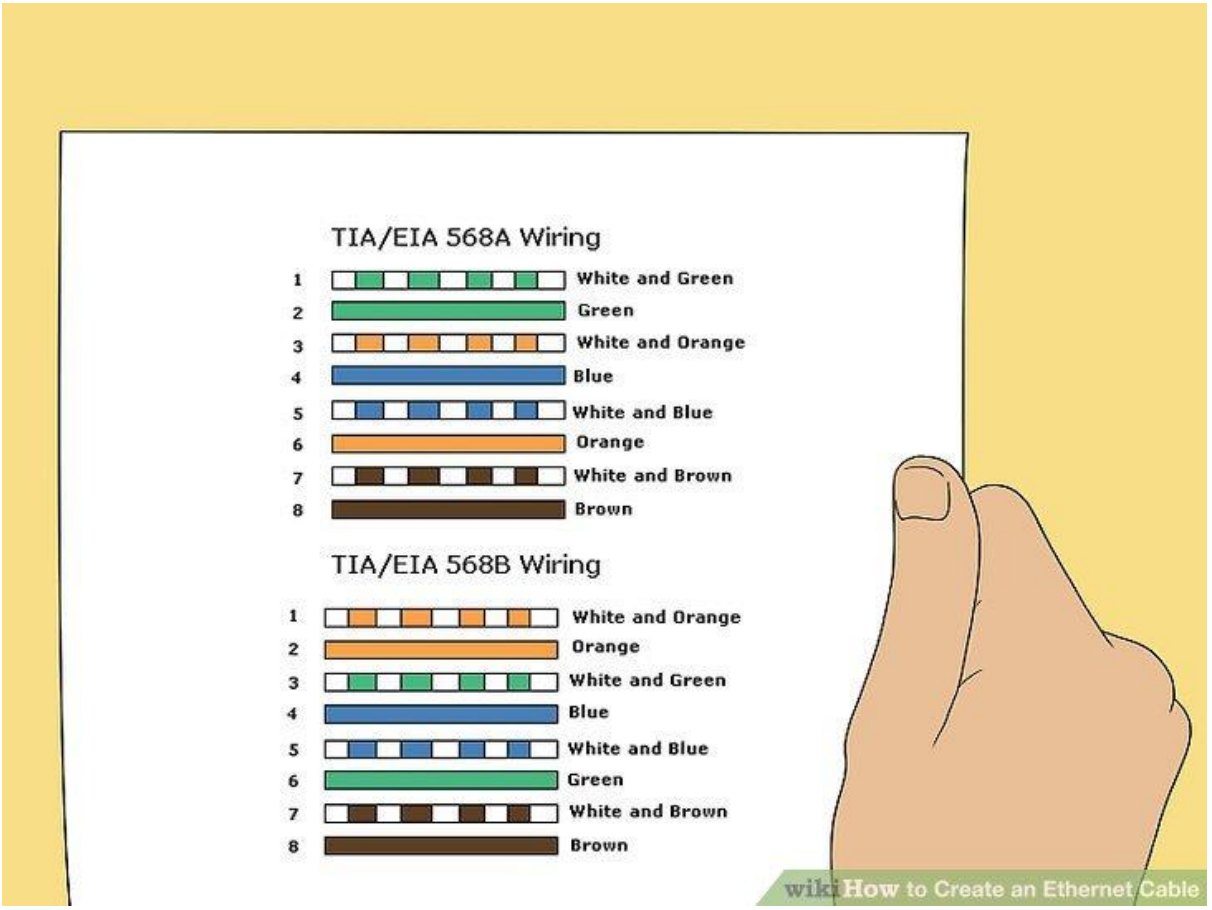
1. Strip about 1.5 inches (3-4 cm) of the outer insulation from both ends of the Ethernet cable.



2.Untwist the twisted pair wires all the way back to the jacket. *This can be done just like a regular twist-tie on a loaf of bread, but with four of them of different colors.*



3.Align the untwisted wires in the order necessary for your needs. *For this scenario, you'll be making a straight-through cable, which has both ends of the cable with the same alignment of wires, so it's easy enough to do. Since this is your first cable, we'll consult the cheat sheet to know what order we're aligning in!*

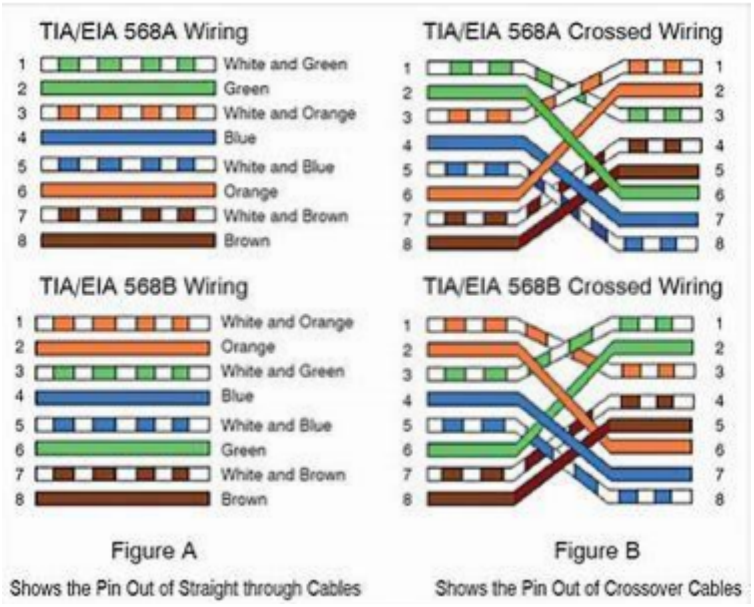


4.Cut the extra wire. *Once you've untwisted the wires, you'll have a superfluous amount of copper wiring left; we don't need this much, but it's good to have it in the previous step to help in aligning the colors properly. Use the wire-cutting scissors to cut these off.*

5.Use a crimping tool *to crimp the connector onto the cable securely.*

6. Repeat the process *on the other end of the cable using the same color-coding scheme.*

CROSSOVER-CABLES:



Follow the same steps as above to strip the cable and arrange the wires. For the crossover cable, use different wiring standards on each end. For example: End 1 (T568B): Arrange the wires according to T568B standard. End 2 (T568A): Arrange the wires according to T568A standard. Crimp the RJ45 connectors onto each end as before.

TESTING:

1. Use a cable tester designed for Ethernet cables.

2. Plug one end of the cable into the tester's main unit and the other end into the remote unit.
3. Turn on the cable tester. It will analyse the connections and display results indicating whether the cable is correctly wired and functional.
4. Follow the tester's instructions to interpret the results. A properly functioning cable will show no errors or connectivity issues.

conclusion:

In conclusion, the meticulous creation of standard network cables, including cross cables, and rigorous testing using specialized equipment is paramount for a reliable and efficient network. Adhering to industry standards ensures proper data

transmission, minimizes interference, and reduces the risk of network downtime. A well-designed and thoroughly tested network cable is a foundational element in maintaining a high-performing network infrastructure, supporting seamless communication and adaptability to evolving technologies.