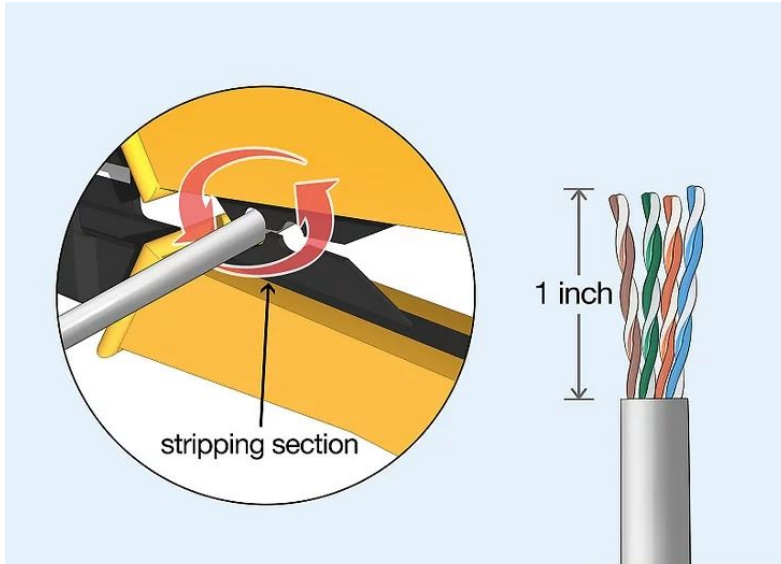


LAB 01 Ethernet

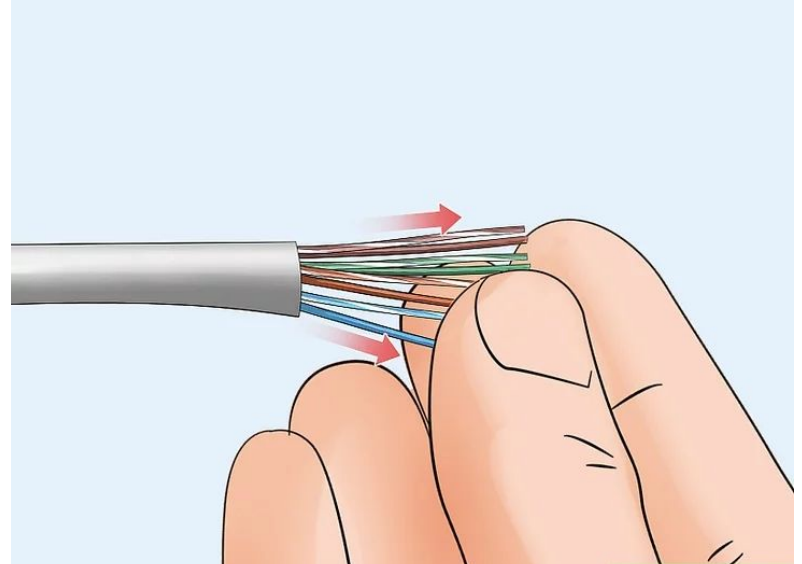
Jennessa Sierra & Andres Hung
CMPS1192 Networking Fundamentals
August 29, 2024

How to Crimp Ethernet Network Cables

1. Strip Cable:

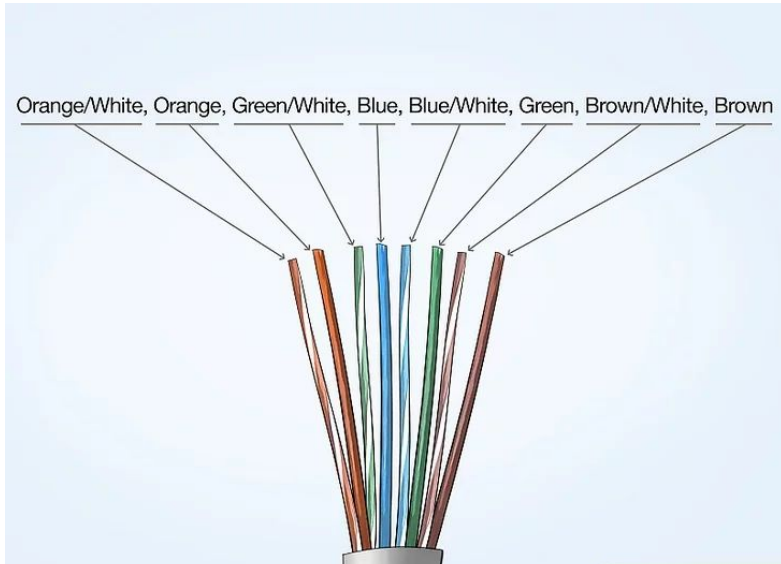


2. Untwist & Straighten Wires:

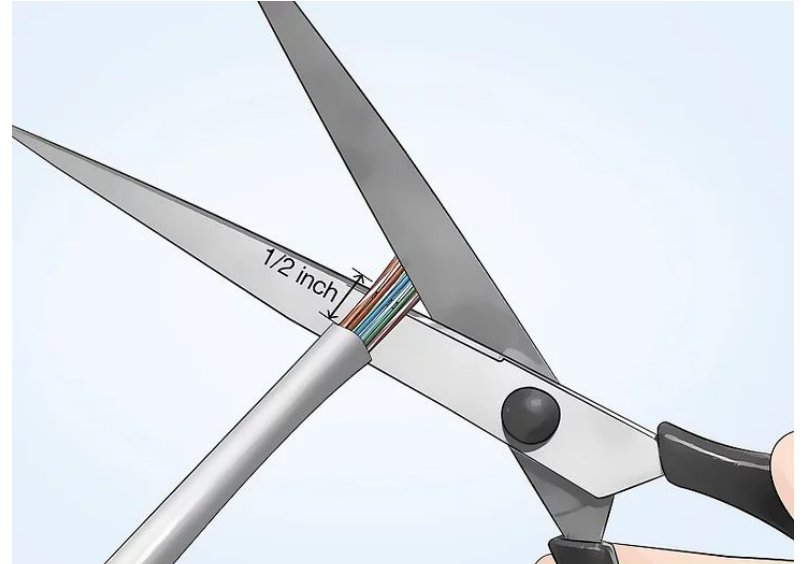


How to Crimp Ethernet Network Cables

3. Arrange Wires:

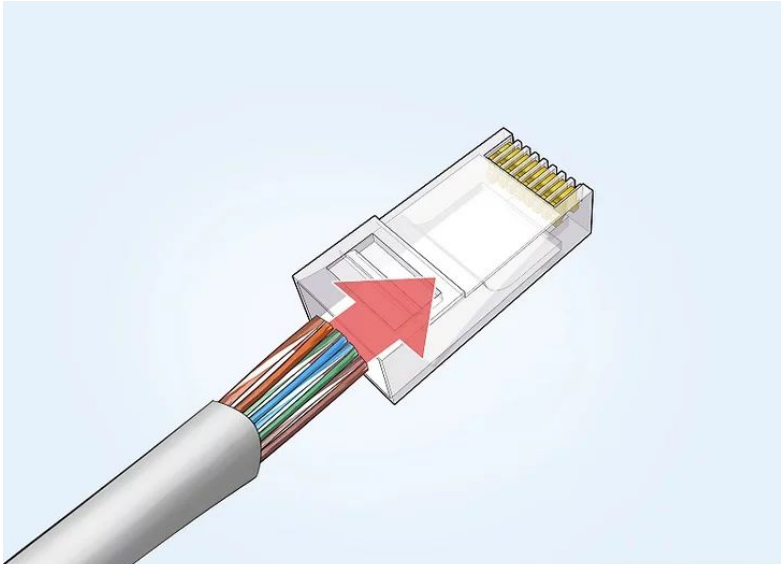


4. Cut Wires:

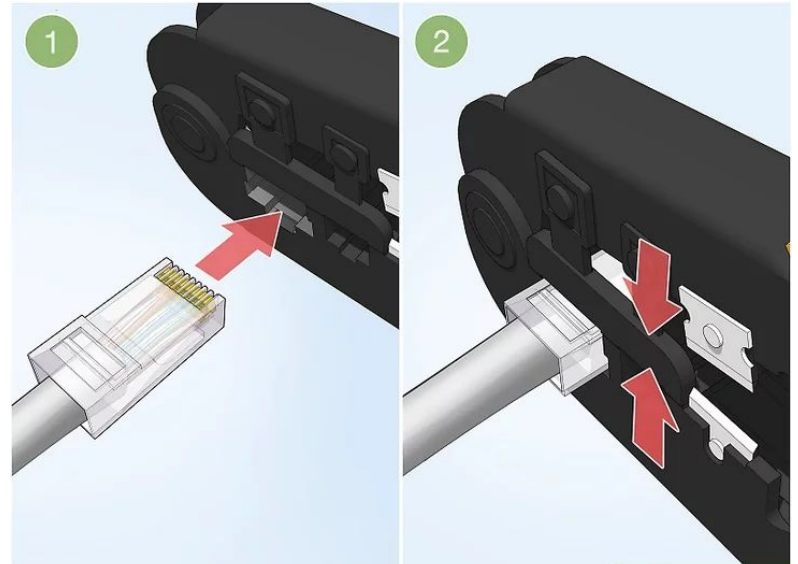


How to Crimp Ethernet Network Cables

5. Insert Wires:

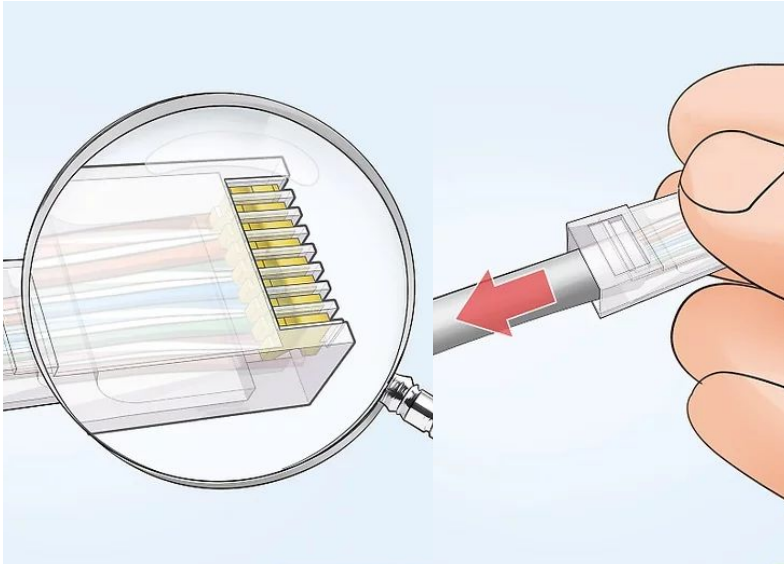


6. Crimp RJ45:

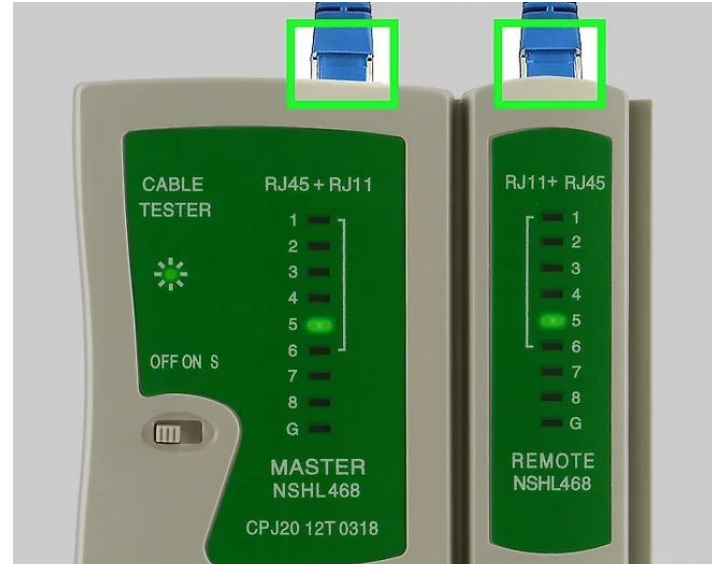


How to Crimp Ethernet Network Cables

7. Inspect Cable:



8. Test Cable:



Experience

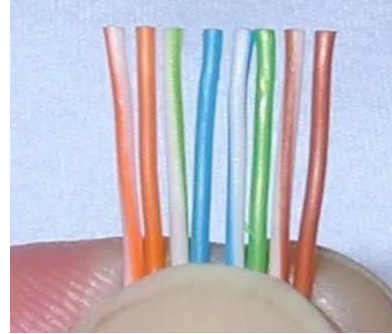
Easiest Part:

- Obtaining materials
- Cutting the cables/wires

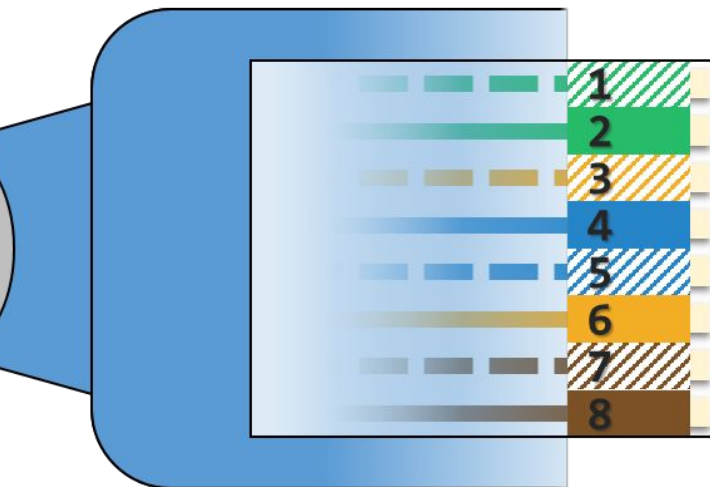


Hardest Part:

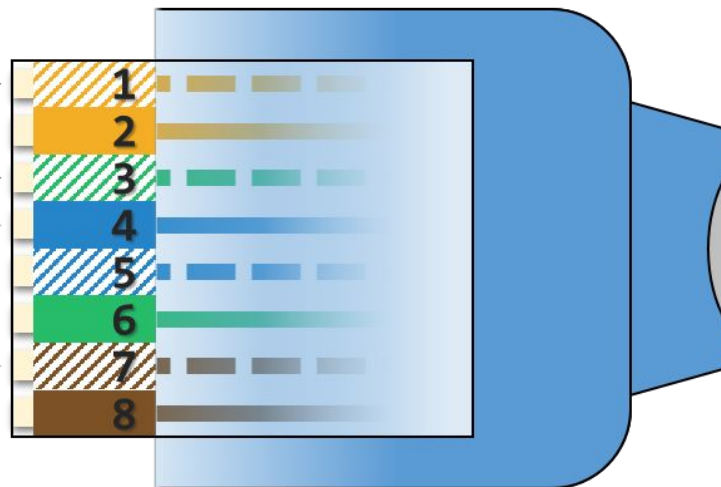
- Straightening wires
- Faulty equipment



T-568a



T-568b



TD

Pair 2

RD

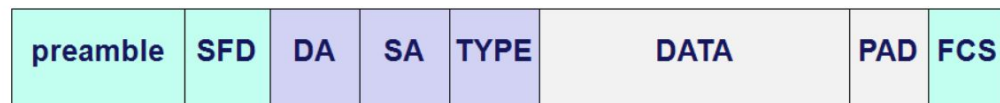
Pair 3

Pair 1

Pair 4

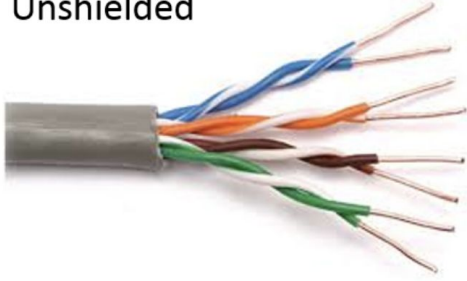
PRACTICAL NETWORKING .NET

Ethernet Wiring
(100Base-TX or Fast Ethernet)

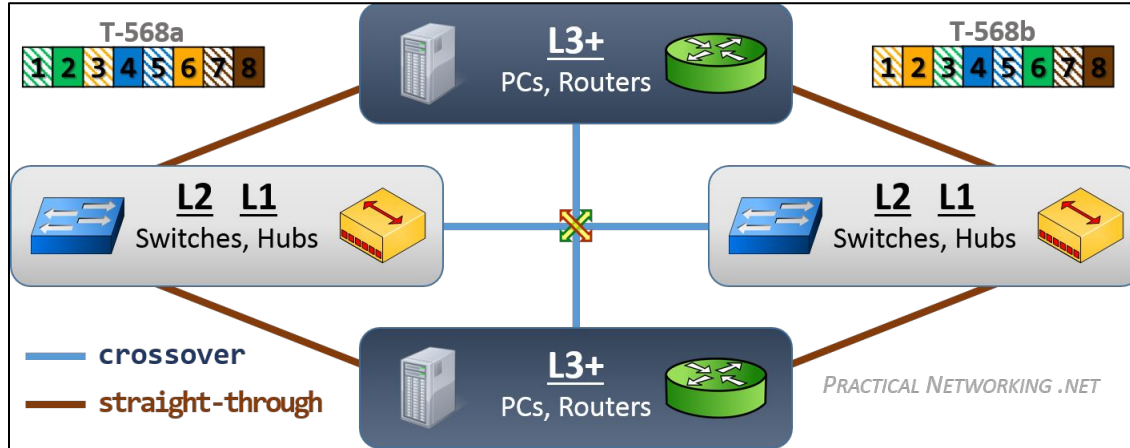


↓
data field: min. 46 bytes, max 1500 bytes
↓

Unshielded



Shielded



Coax

- 10Base 2
- 10Base 5

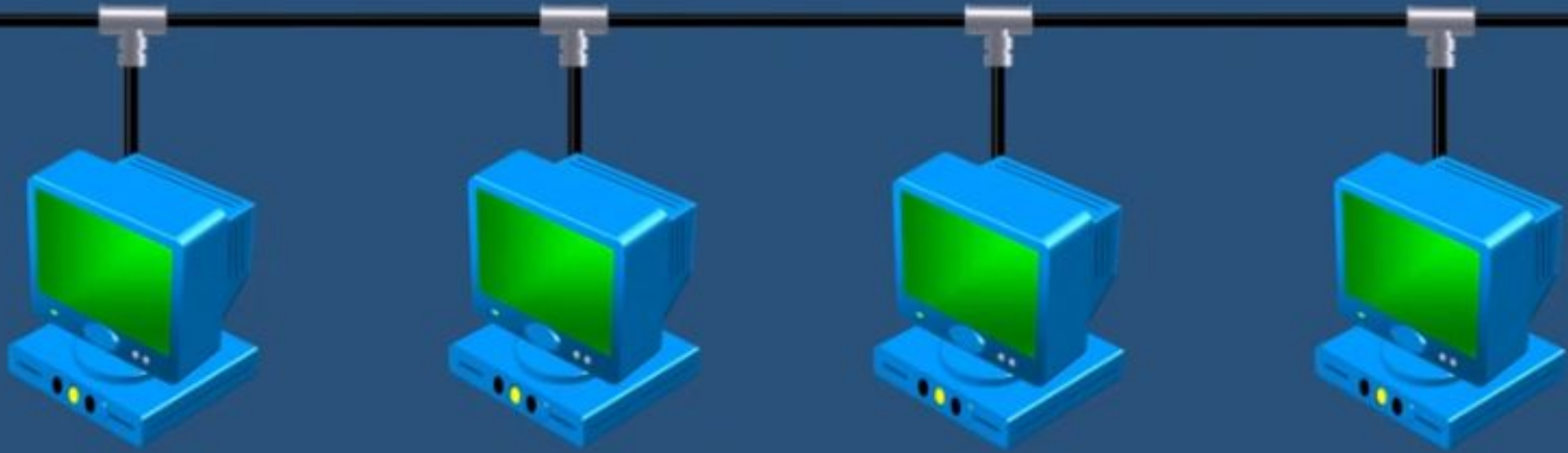
Twisted-Pair

- 10Base T
- 100Base TX
- 1000Base T

Fiber

- 1000Base SX (multimode)
- 1000Base LX (singlemode)

Ethernet Cable Types



A

D

Carrier Sense Multiple Access with Collision Detection (CSMA/CD)