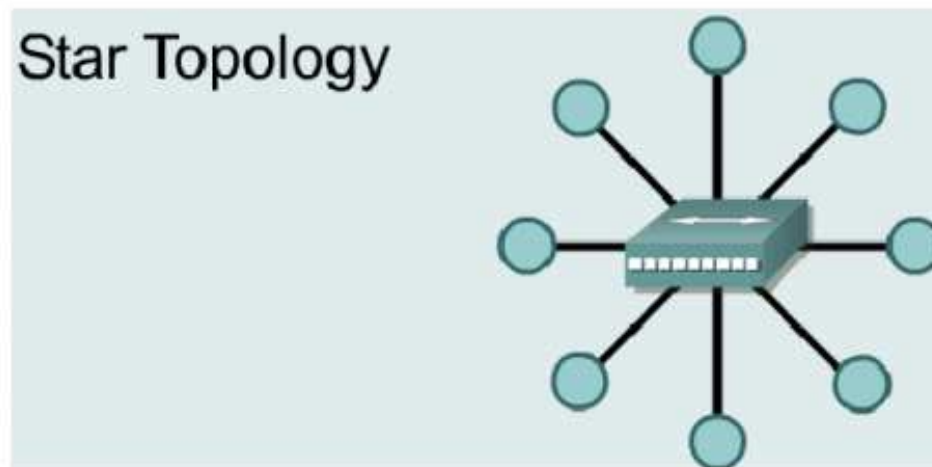
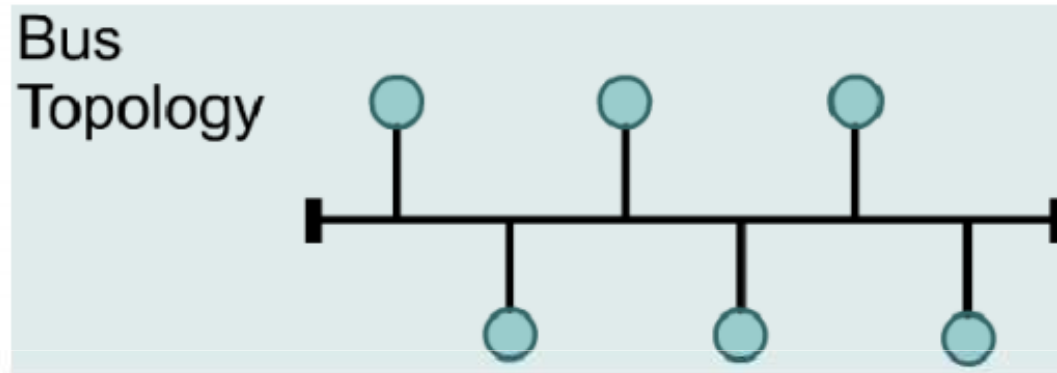




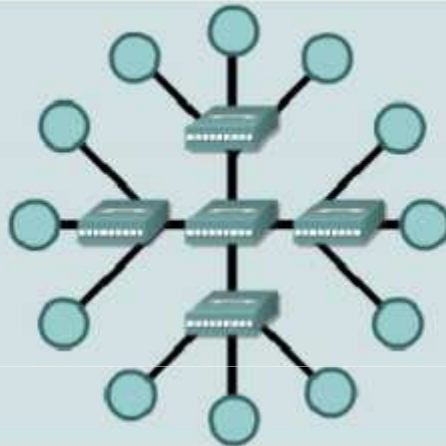
Media Environments

Network Topologies (1)

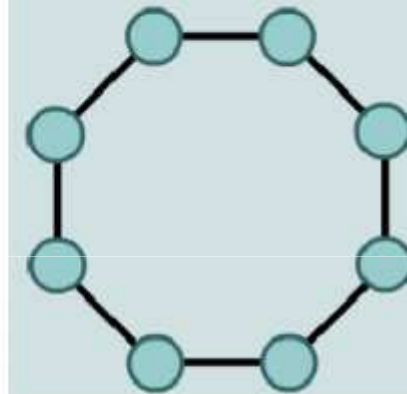


Network Topologies (2)

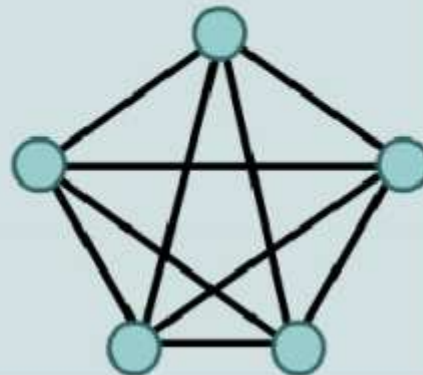
Extended Star Topology

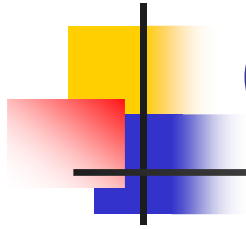


Ring Topology



Mesh Topology

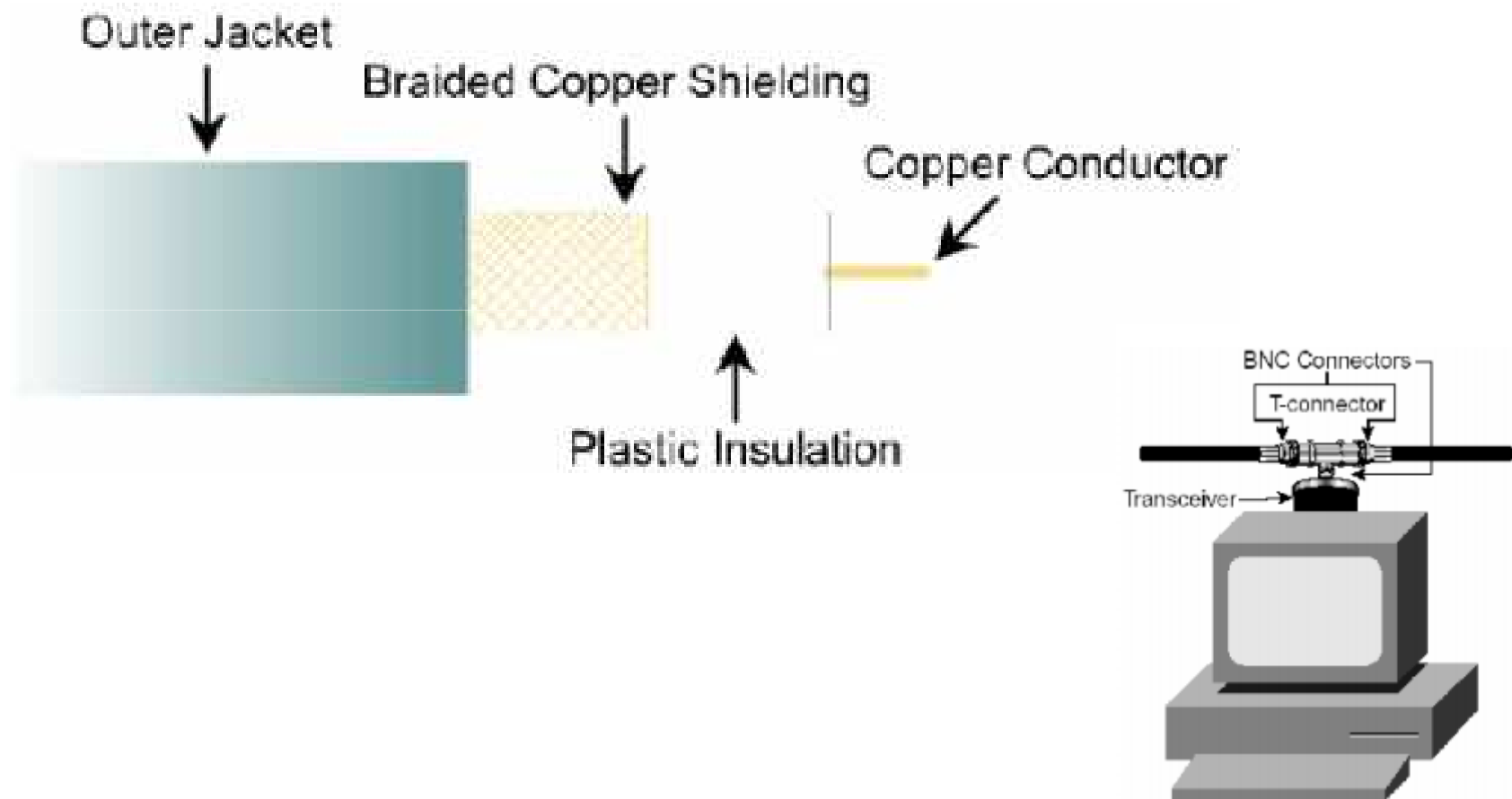




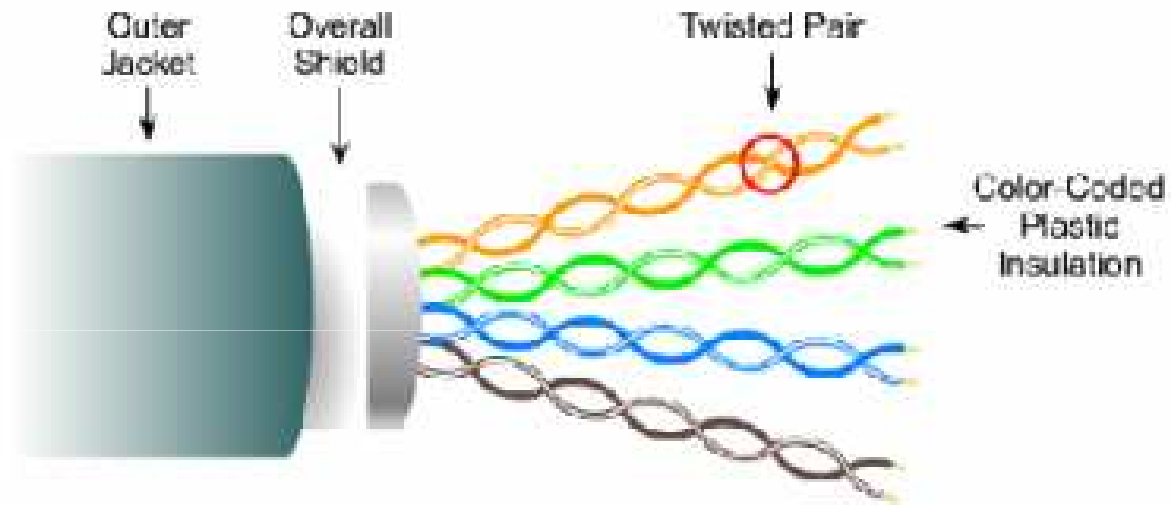
Cabling & Connectors

- Coaxial Cabling
- Unshielded Twisted-Pair Cabling & Shielded Twisted-Pair Cabling
- Fiber-Optic

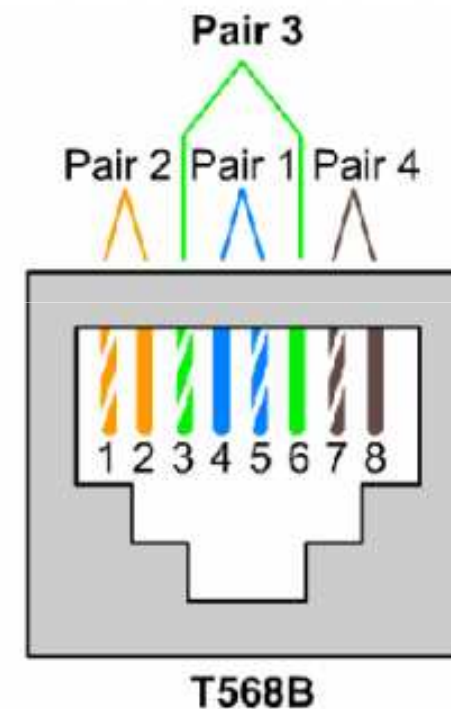
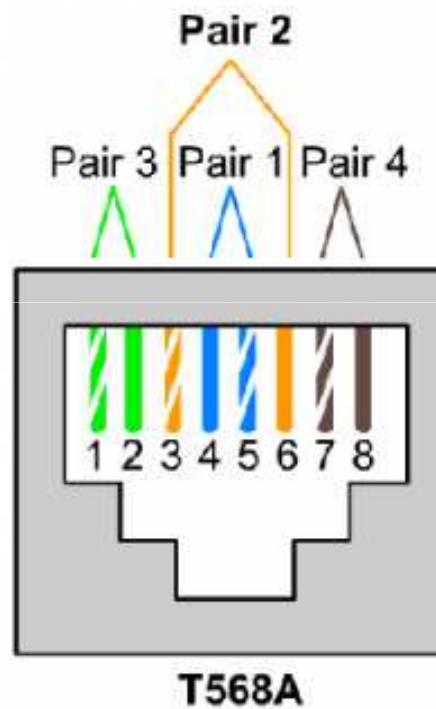
Coxial Cable



Shielded Twisted-Pair Cable



UTP Connector



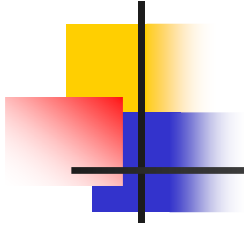
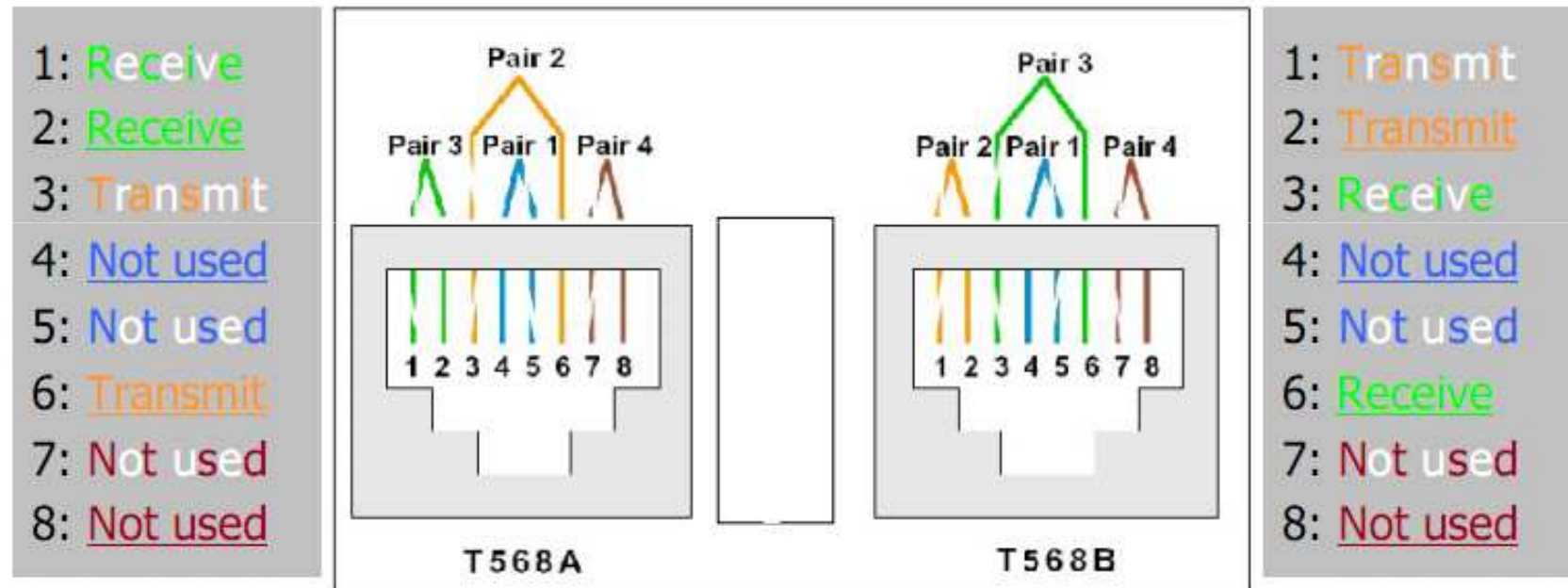


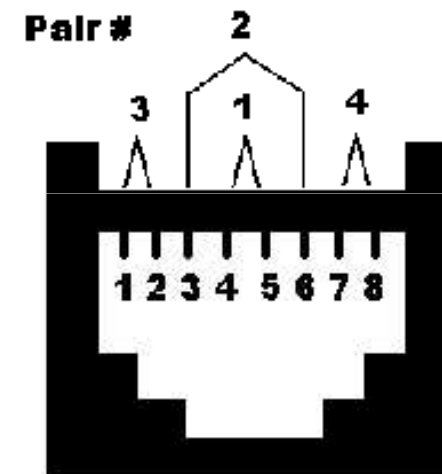
Diagram showing both T568-A and T568-B cabling wire colors



T568A

Pin Color Pair Description

1	white/green	3	RecvData +
2	green	3	RecvData -
3	white/orange	2	TxData +
4	blue	1	Unused
5	white/blue	1	Unused
6	orange	2	TxData -
7	white/brown	4	Unused
8	brown	4	Unused

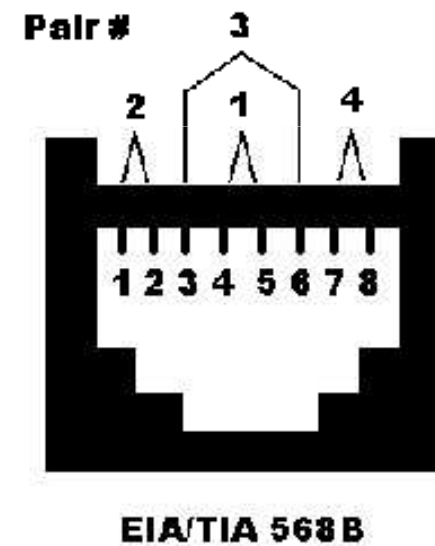


EIA/TIA 568A

T568B

Pin Color Pair Description

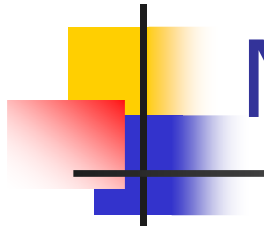
1	white/orange	2	TxData +
2	orange	2	TxData -
3	white/green	3	RecvData +
4	blue	1	Unused
5	white/blue	1	Unused
6	green	3	RecvData -
7	white/brown	4	Unused
8	brown	4	Unused





Types of Cabling

- Straight-through cable: **T568A – T568A**
 - Nối các thiết bị khác loại nhau
- Cross-over cable: **T568A – T568B**
 - Nối các thiết bị cùng loại
- Roll-over cable: **T568A – T568A**
 - Kết nối PC tới cổng cấu hình của Switch, Router, ...



Những công việc cần làm!!!

- Lắp đặt phần cứng mạng (*đã tiến hành*):
 - Hub, Switch, PC, ...
 - Theo một Topology cho trước
- **Đo đạc cable**
- **Bấm cable**
- **Kiểm tra kết quả**
- **Vẽ lại Topology sau khi hoàn thành**
(*vẽ bằng Packet Tracer*)

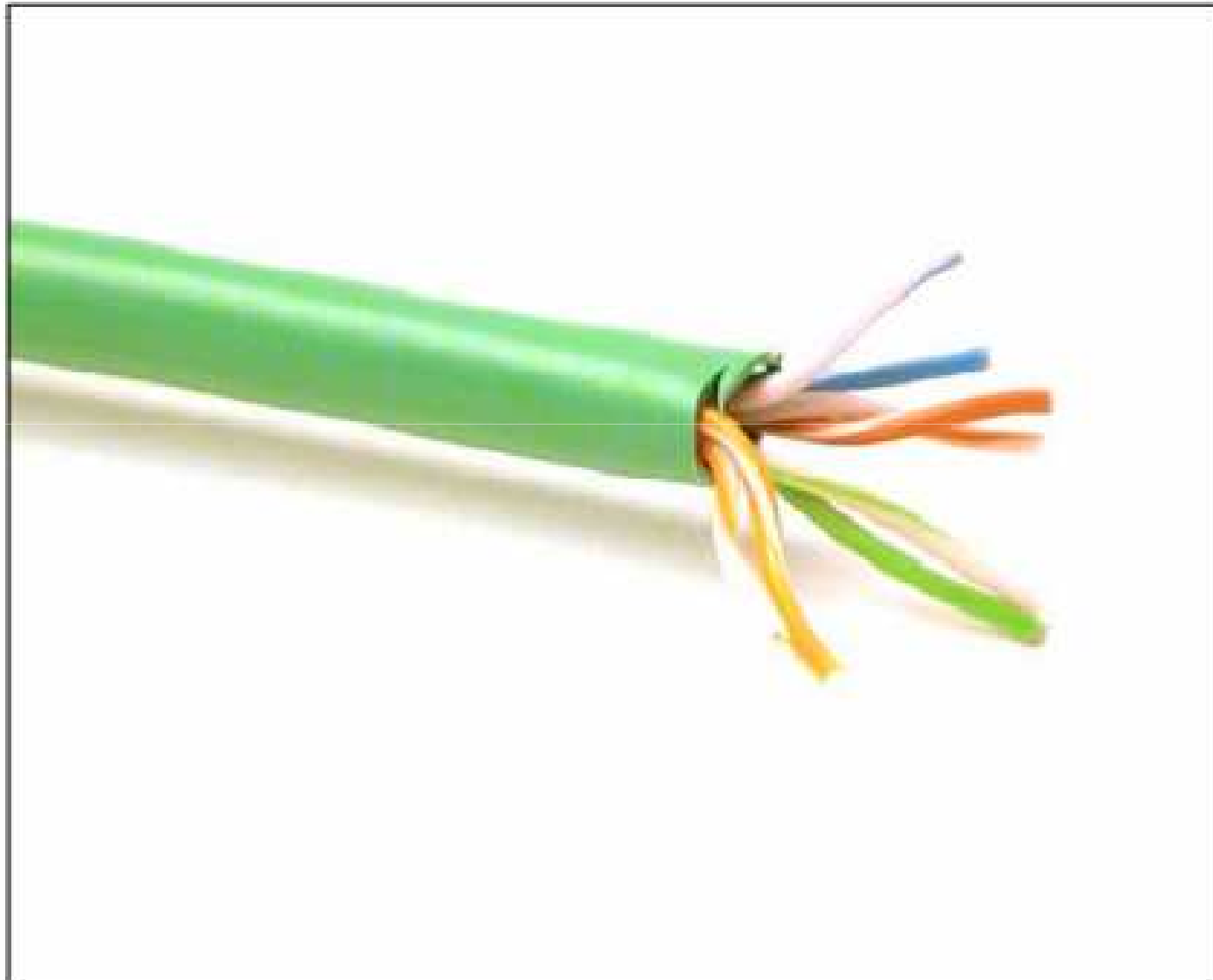
Step 1: Cut a length of cable



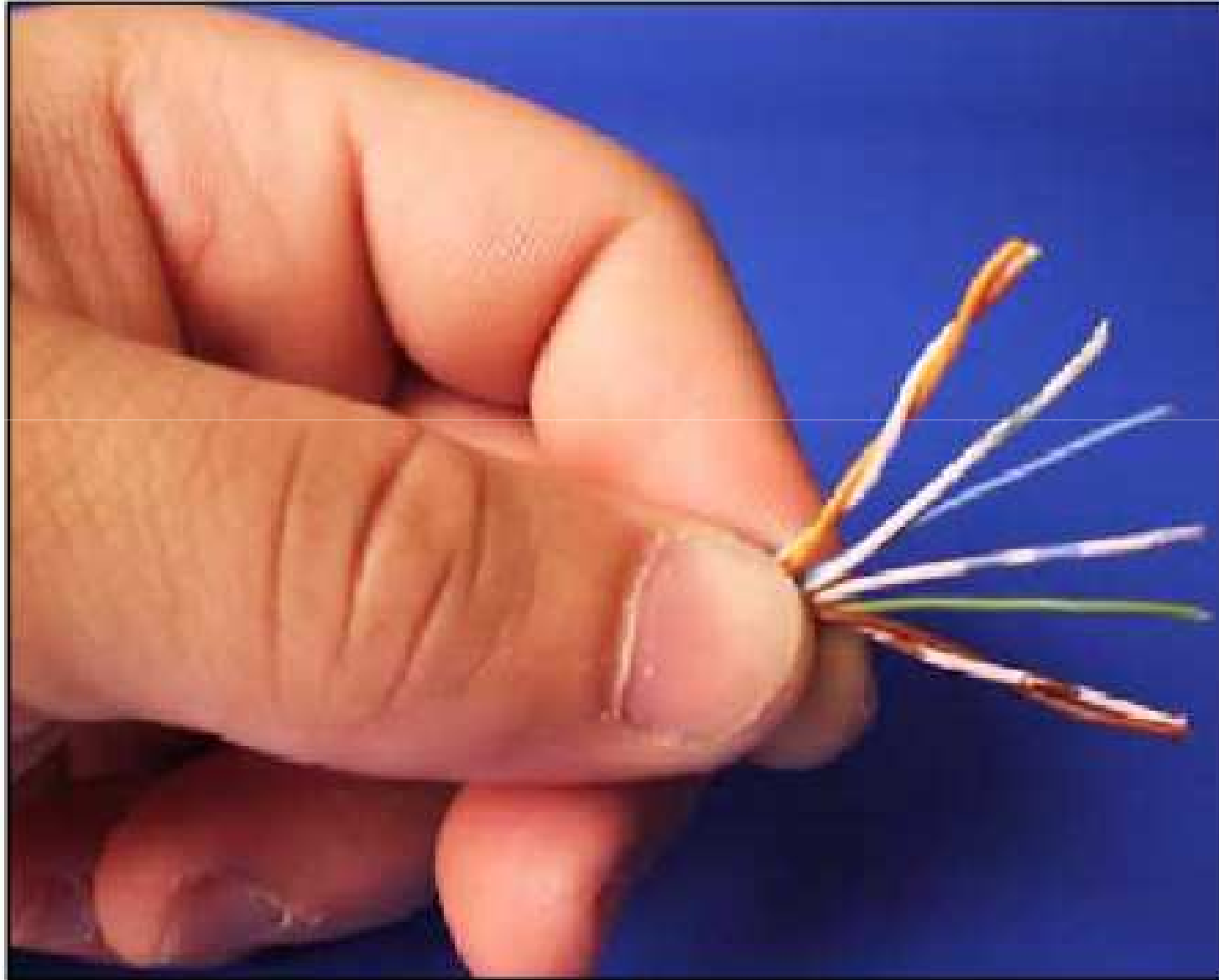
Step 2: Strip off the jacket



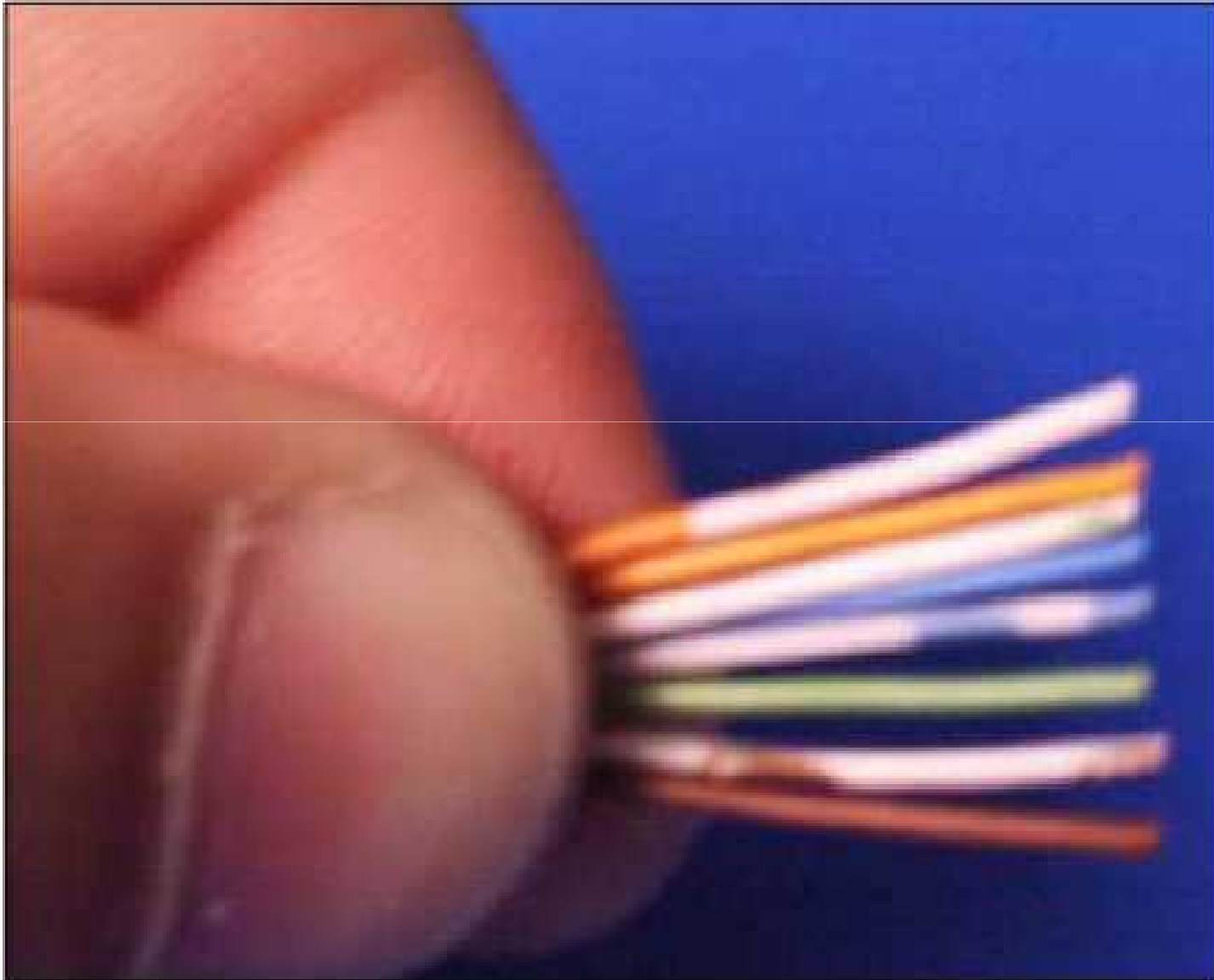
Step 3: Separate the wires



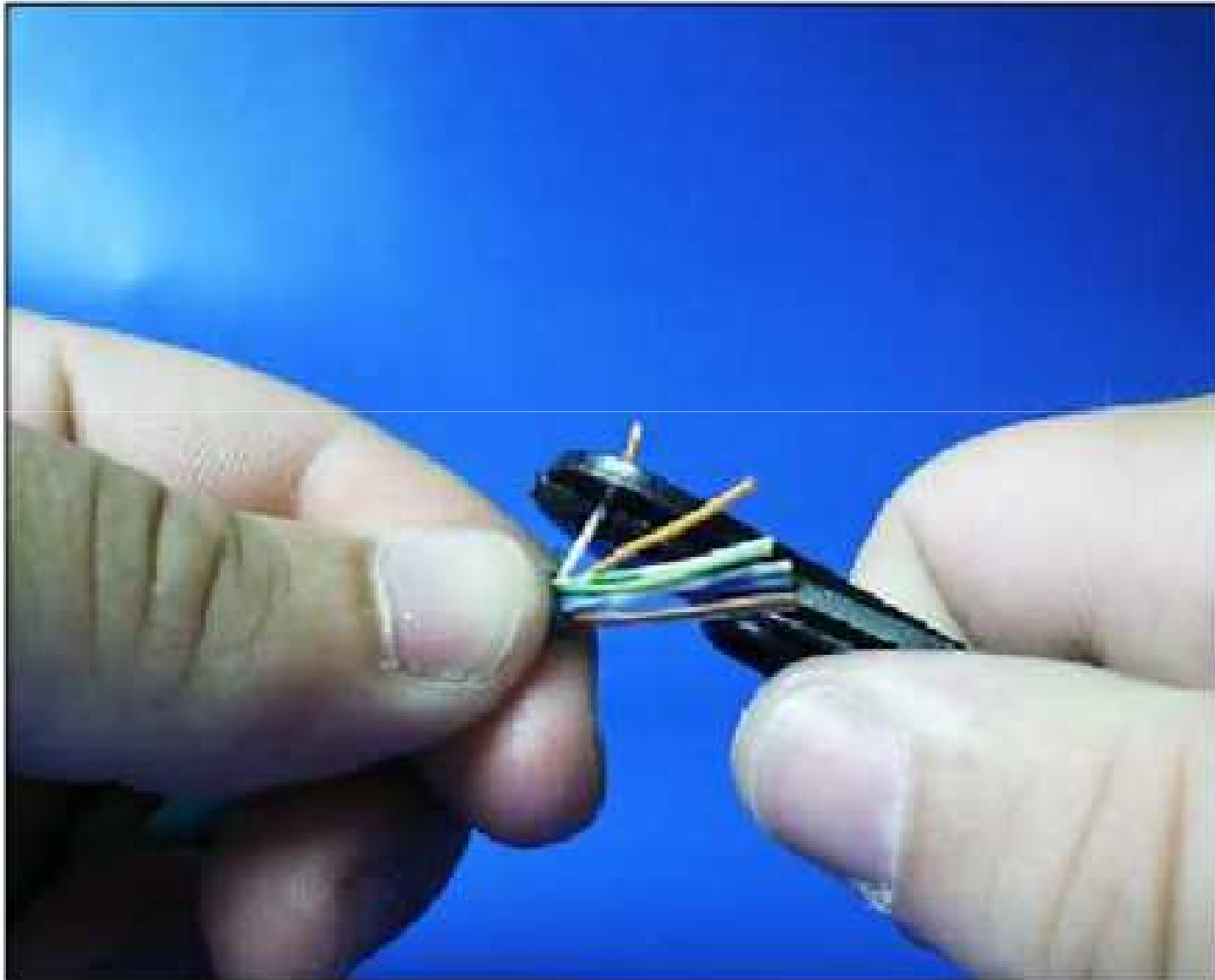
Step 4: Untwist the wires



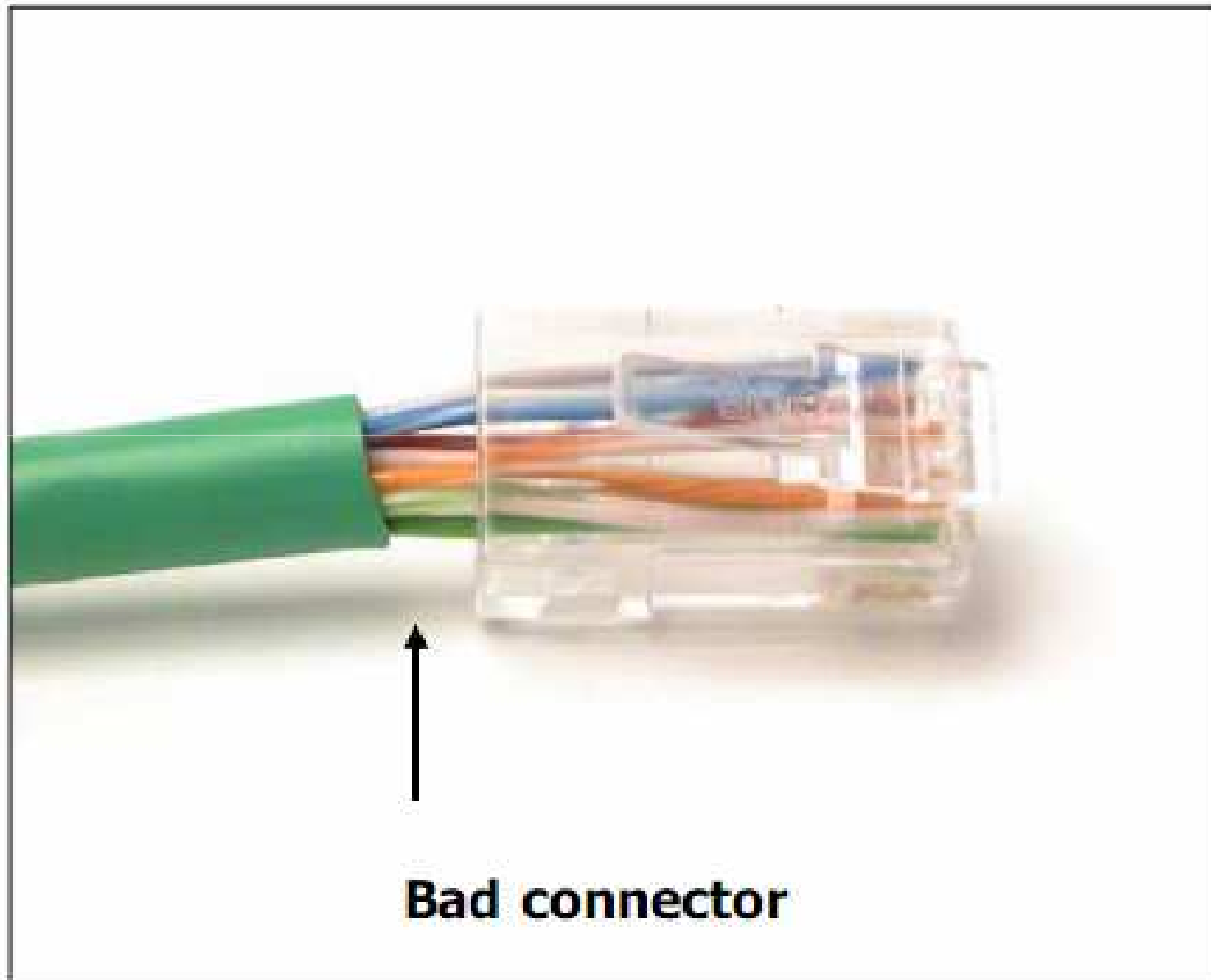
Step 5: Organize and flatten wires



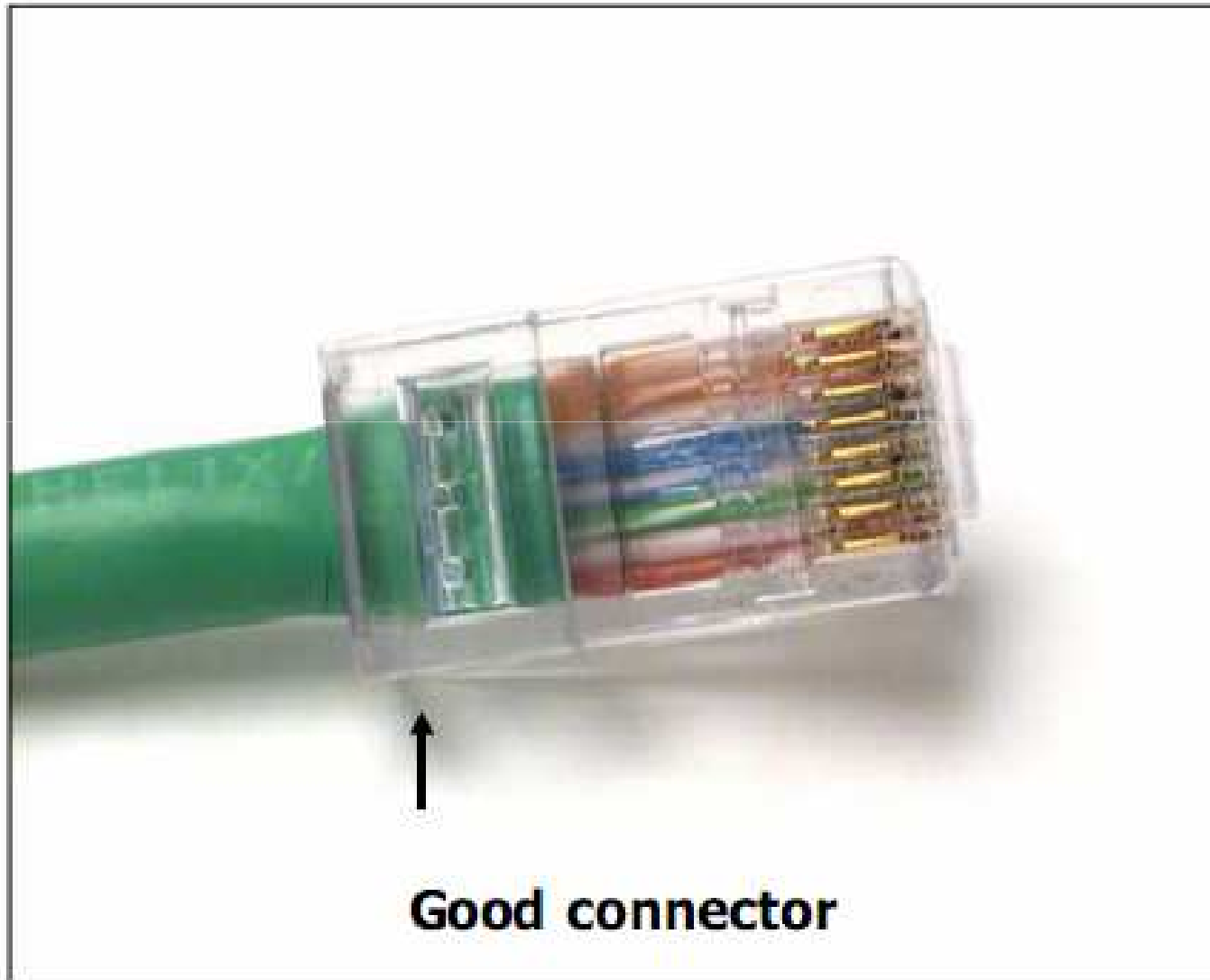
Step 6: Clip the wires



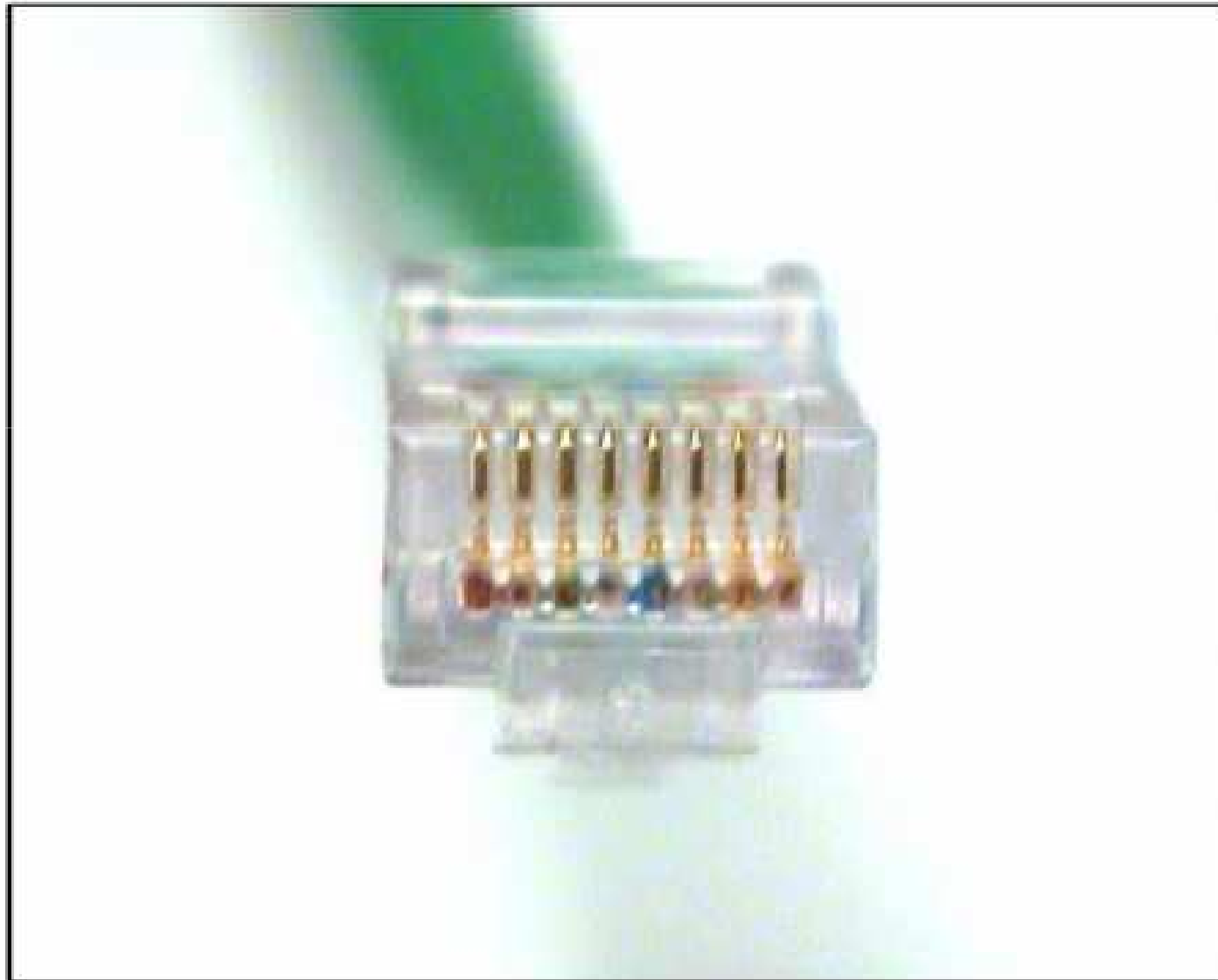
Step 7a: Insert wires into RJ-45 plug



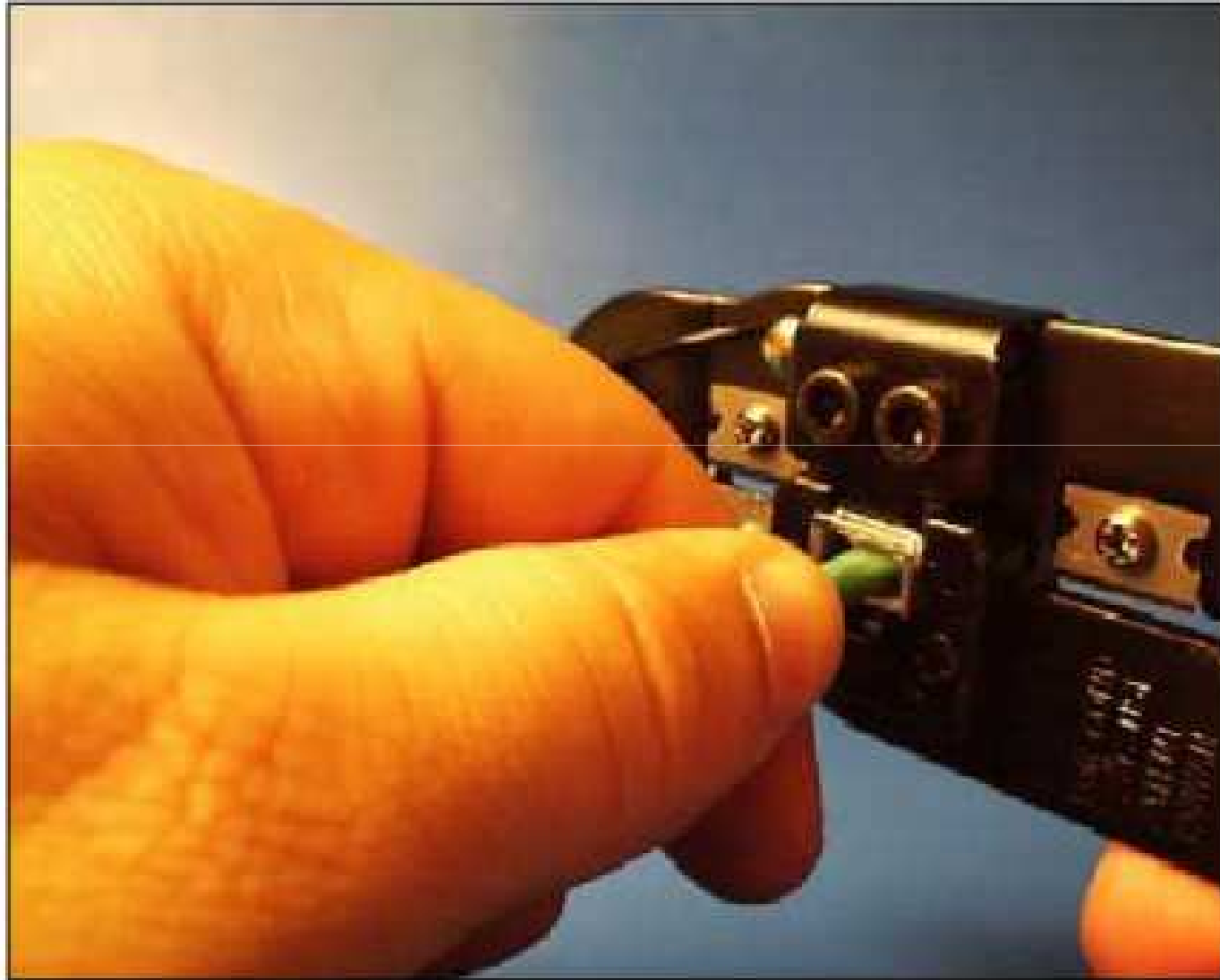
Step 7b: Insert wires into RJ-45 plug



Step 8: Push the wires in



Step 9: Crimp down the wires



Step 10: Inspect both ends



Step 11: Test the quality of cable





Kiểm tra kết nối

- PC A có IP Address: 192.168.5.10/24
- PC A có IP Address: 192.168.5.11/24
- Kiểm tra kết nối giữa 2 PC A & B:
 - Tại DOS trên máy A:
 - ping 192.168.5.11
 - Tại DOS trên máy B:
 - ping 192.168.5.10
 - Kết quả của lệnh ping:
 - Request timeout
 - → Kết nối không thành công
 - Reply from 192.168.x.y: Destination unreachable.
 - → Kết nối thành công về mặt vật lý (Không thành công về mặt logic)
 - Reply from 192.168.x.y: bytes=32 time=2ms TTL=253
 - → Kết nối thành công