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# Study of Cables

aim

To study different types of cables for giving connections

UTP Unshielded Twisted pair

STP Shielded Twisted pair

Coaxial cable

Fibre Optical Cable

1. UTP

Category -3 10 bps data transmission

Adv :

Cheaper

Easy to install

Disadv :

More prone to emit

Uses :

10 Base Ethernet

Category -5 upto 100 mbps data transmission

Uses :

Fast Ethernet, Gigabit Ethernet

Category 5e 1 gbps data transmission

Uses : Fast Ethernet

2. STP

category 6, 6a

10 Gbps data transmission

10GB ethernet

8.

88TP

category 7 10 gbps data transmission

10GB Ethernet

Adv: shielded, faster than UTP

Disadv: Expensive

4.

coaxial cable

RG-6, RG-59, RG-11 Category  
10-100 mbps data transmission

Television Network

High speed internet connection

5. Fibre optical cable

Single & Multimode Category  
100 gbps data transmission

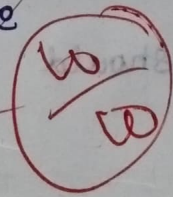
Adv:

High Speed & Bandwidth

Disadv:

Expensive

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## Required Equipments

Ethernet Cabling. CAT5e is satisfied for gigabit support but cat 5 cabling works as well, over shorter distance

Two RJ45 plugs

2 plug shields

Step 1: To start construction, start the threading shield onto the cable

Step 2: Strip approximately 1.5 cm of cable from both ends. The crimping tool has round area to complete.

Step 3: After untangle the wires, 4 twisted pairs, referencing back to the sheet, arranging from top to bottom. one should be in arrangement A and other in B.

Step 4: If the order is correct, join them in a line and if they stick out farther, join them to create even level. The diff aspect is placing into RJ45 plug without messing the order, to do so hold plug with clip side facing away and have gold pins facing upwards

Step 5: push the cable right in, the notch at the end of the plug need to be just over cable shielding

Step 6: After the wires are correctly sitting inside the plug, insert into the cramping tool and push down

Step 7: Repeat the similar steps to create

crossover cables.

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Result?