

HARNESS CABLE



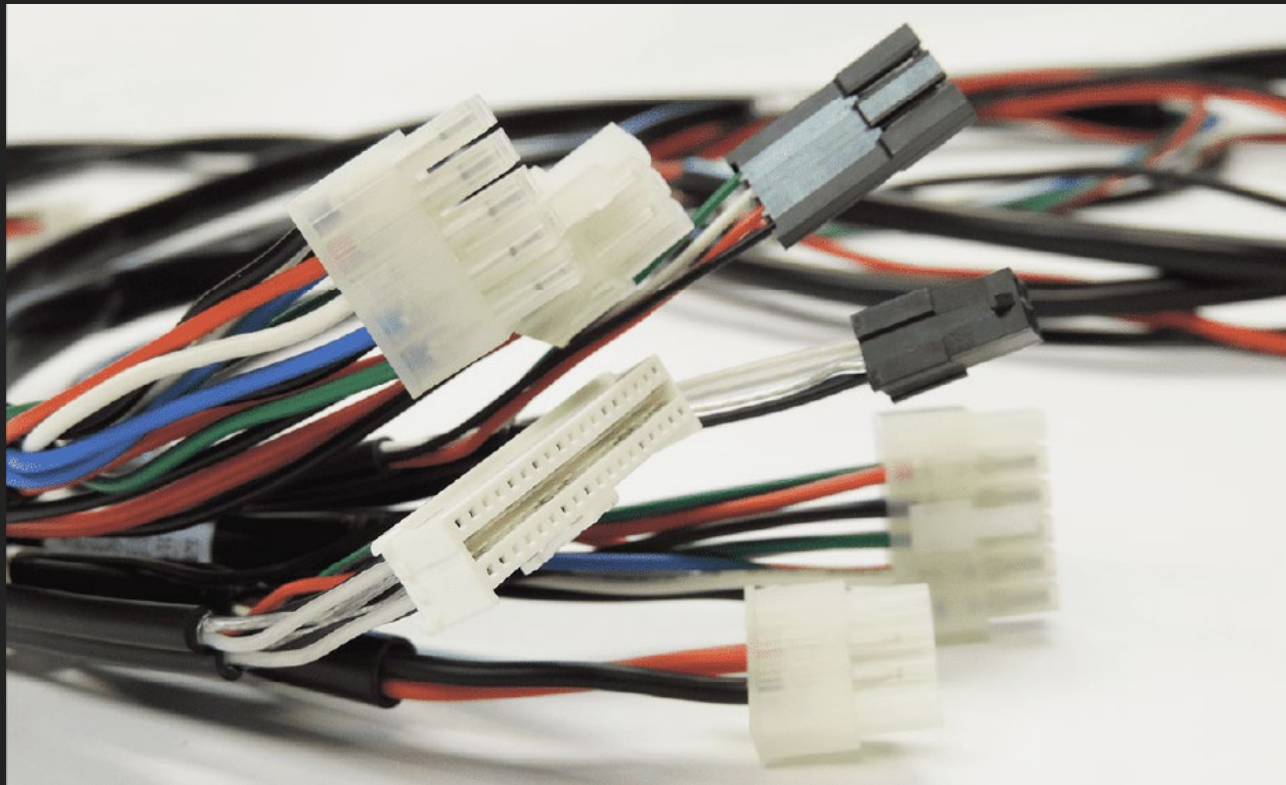
HARNESS CABLE

What is a harness cable?

A harness cable, also known as a wire harness or cable assembly, is a structured bundle of wires, cables, and connectors designed to transmit electrical signals or power. It keeps wires organized, prevents tangling, and protects them from heat, moisture, vibration, and abrasion. Harness cables simplify installation by combining multiple connections into one unit, enhancing efficiency and safety by reducing the risk of electrical shorts or damage. They are commonly used in automotive systems to connect batteries and sensors, in medical devices for powering diagnostic equipment, in industrial machinery for control panels, and in electronics for routing signals in appliances and computers.

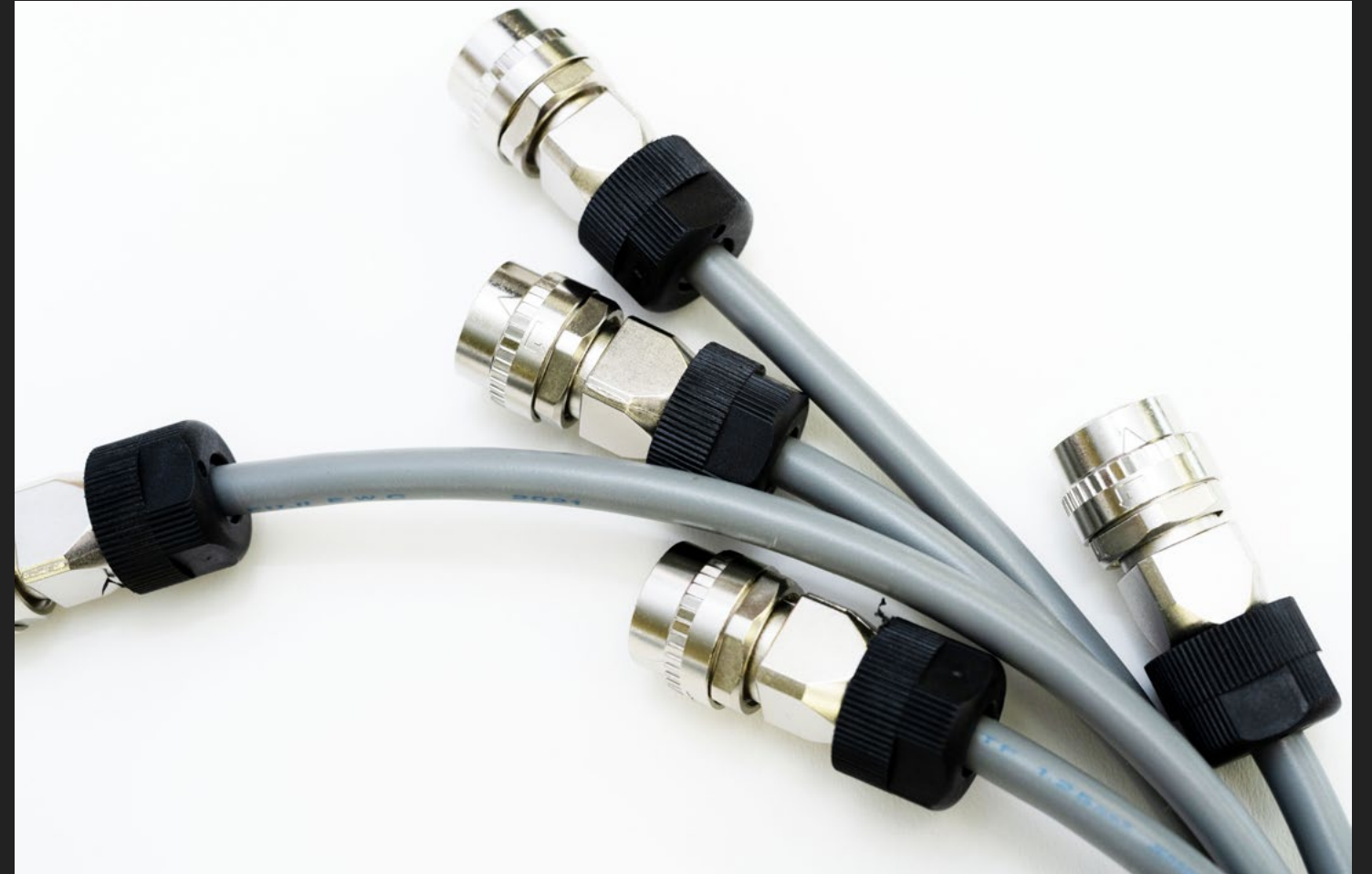
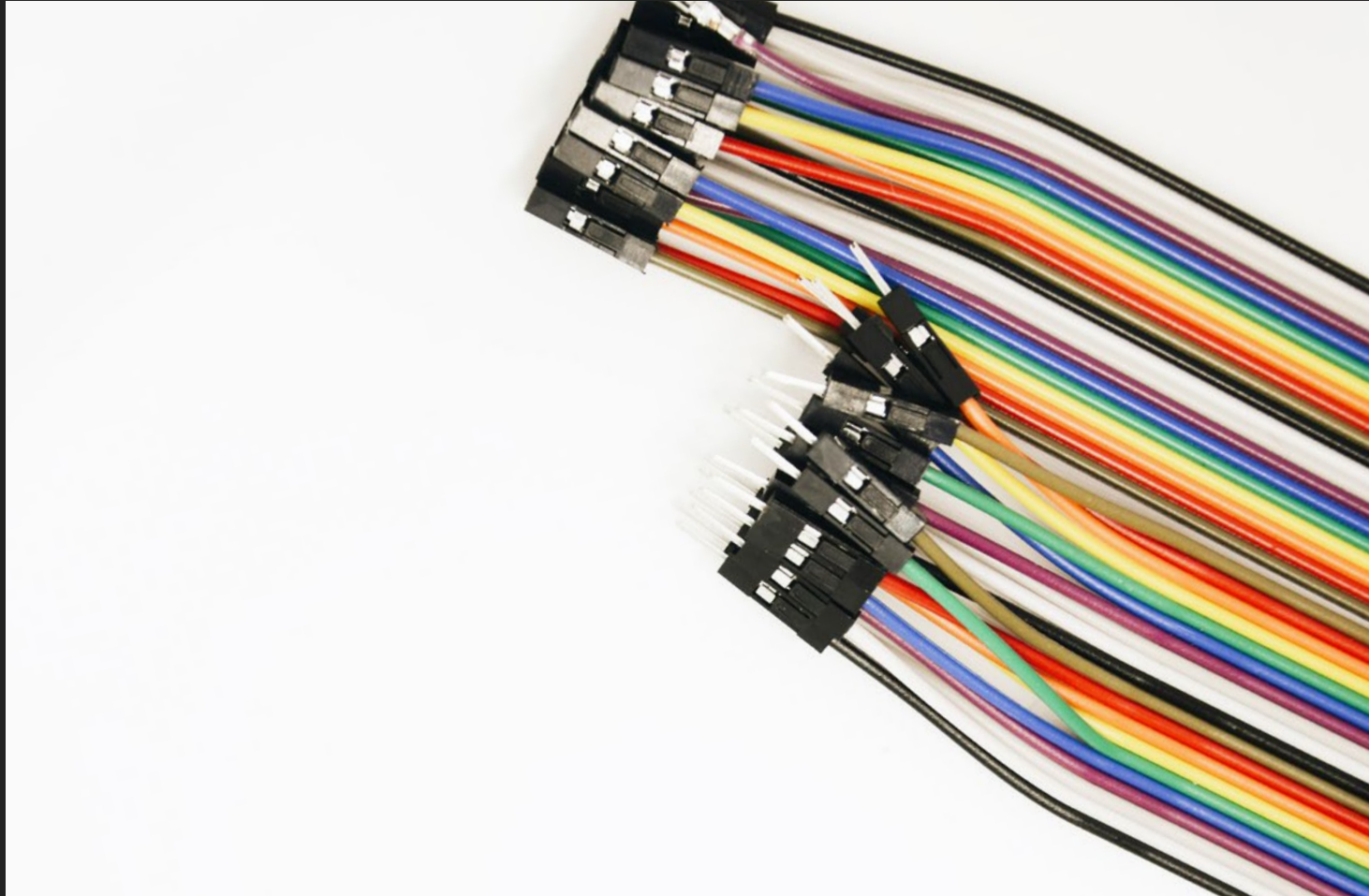


KEY COMPONENTS AND CONSIDERATIONS



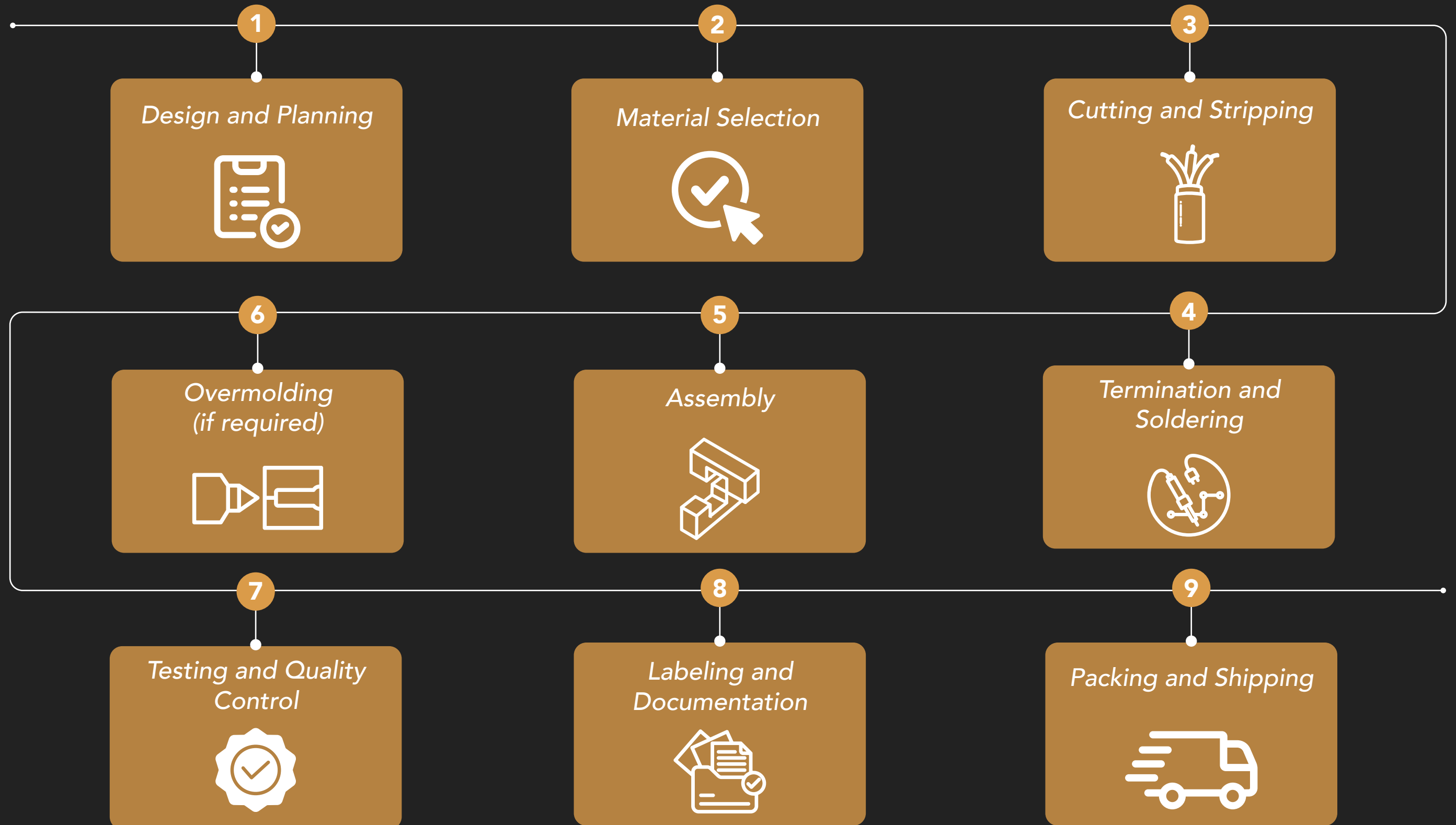
- **Cables and Wires:** These are the core elements that carry electrical signals or power. They can vary in type (e.g., coaxial, fiber optic, twisted pair) and specification (e.g., gauge, insulation material).
 - **Connectors:** These are attached to the ends of the cables to facilitate easy connection and disconnection from other components or systems. Common types include USB, HDMI, D-sub, RJ45, and many others.
 - **Shielding and Insulation:** To protect against electrical interference and environmental factors, cables are often shielded with materials like foil or braided wire. Insulation materials, such as PVC, rubber, or Teflon, are used to encase the cables.
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- **Strain Relief:** This is used to prevent stress on the cables and connectors, which can lead to damage or disconnection. Strain relief can be achieved through various methods, such as clamps, boots, or overmolding.
 - **Bundling and Routing:** Cables are bundled and routed to ensure they remain organized and free from tangling or damage. This can involve the use of cable ties, sleeves, and channels.
 - **Labeling and Color Coding:** To facilitate identification and troubleshooting, cables within an assembly are often labelled or color-coded.

TYPE OF ASSEMBLIES



- **Standard Cable Assemblies:** These are pre-configured and ready-made assemblies used for common applications, such as power cords, Ethernet cables, and USB cables.
- **Custom Cable Assemblies:** These are tailored to specific requirements and applications. Custom assemblies can include unique connector configurations, specific lengths, specialized shielding, and other custom features.

HARNESS CABLE PROCESS



HARNESS CABLE APPLICATIONS

Automotive

- Wire harnesses in automotive applications bundle and protect wires, distributing power and signals throughout the vehicle.
- They connect key components like the engine, dashboard, and battery for reliable operation.



Electronics

- Ensuring efficient power and signal distribution.
- They connect components like circuit boards, displays, and power supplies in devices such as computers and smartphones.



Medical

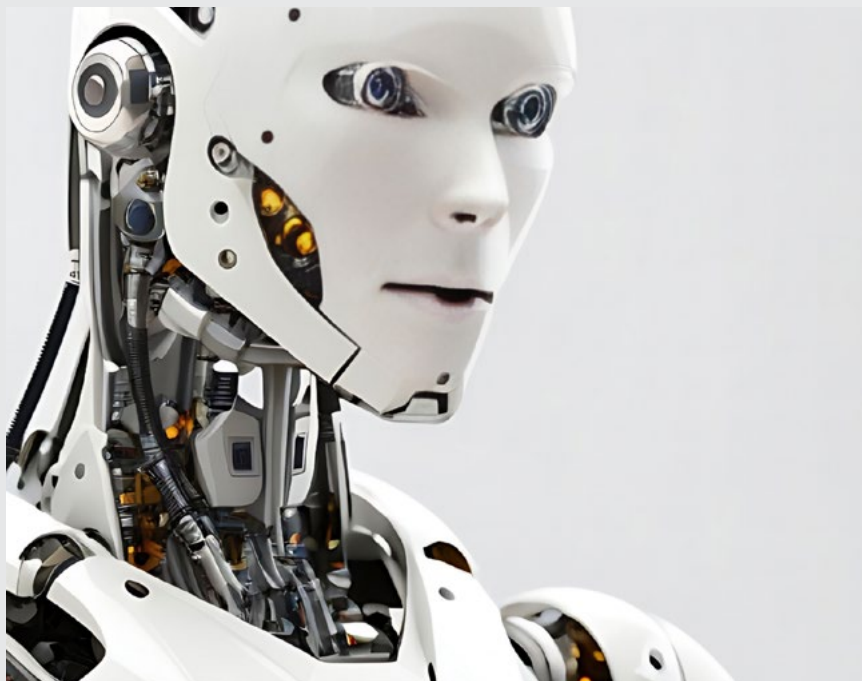
- Ensuring reliable power and data transmission.
- They connect components in devices like MRIs and ultrasounds, built to resist interference and sterilization.



HARNESS CABLE APPLICATIONS

Robotics

- Ensuring reliable power and signal transmission.
- They connect components like motors, sensors, and controllers, designed for precision and durability in dynamic environments.



Telecommunications

- Ensuring reliable data and power transmission.
- They connect components like routers, servers, and antennas, designed for high-speed and secure communication.



Aerospace

- Ensuring reliable power and signal flow.
- They connect key systems like avionics, engines, and sensors, with shielding for heat and vibrations.



CERTIFICATIONS

- ISO 9001:2015
- ISO 14001:2015
- ISO 45001:2020
- IATF 16949:2016
- Reach-SVCH Statement
- RoHS Compliance Certificate
- ITAR

ISO 9001:2015
COFAN Dongguan



ISO 9001:2015
COFAN Taiwan



ISO 14001:2015
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ISO 45001:2020
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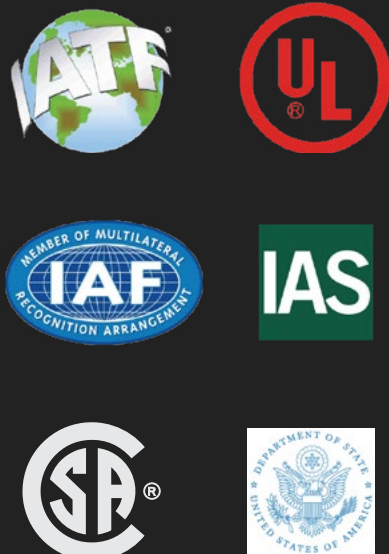
ITAR
COFAN USA



Reach-SVCH
Statement



RoHS-Compliance Certificate
Cofan Taiwan





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