

A **cable harness**, also known as a **wire harness**, **cable assembly**, **wiring assembly** or **wiring loom**, is a string of [cables](#) and/or [wires](#) which transmit informational signals or operating currents [energy](#). The cables are bound together by [clamps](#), [cable ties](#), [cable lacing](#), sleeves, [electrical tape](#), [conduit](#), a weave of extruded string, or a combination thereof.

Commonly used in [automobiles](#), as well as construction machinery, modern-day cable harnesses provide several advantages over loose wires and cables. For example, many aircraft, automobiles and spacecraft contain many masses of wires which would stretch over several kilometres if fully extended. By binding the many wires and cables into a cable harness, the wires and cables can be better secured against the adverse effects of vibrations, abrasions, and moisture. By constricting the wires into a non-flexing bundle, usage of space is optimized, and the risk of a [short](#) is decreased. Since the installer has only one harness to install (as opposed to multiple wires), installation time is decreased and the process can be easily standardized. Binding the wires into a [flame-retardant](#) sleeve also lowers the risk of electrical fires.



