

Dataweave

Dataweave is a stretchy synthetic material that serves as a wearable electronic circuit board with components varying from the microscopic to the femtoscopic. It was first employed in its current form in [YE 41](#) and is often used to make clothing that has data processing, sensory, and/or display capabilities of some kind. The type of materials used to make Dataweave can vary depending on the application. It is common for Dataweave to be powered by body heat. Any Dataweave system designed as conceptual Star Army equipment is designed to also be powered by [SPINE](#) and/or recharge when within a kilometer of a Star Army vessel or a modern NH-series form of life, though the latter can be disabled for stealth purposes.

Inspired by a bad Yule Tide sweater that lit up and played musical notes, Dataweave was employed in [YE 41](#) by [Kage Yaichiro](#) for use in a hypothetical Star Army Uniform to integrate communicator and other functionality into the outfit itself. While intended initially for the [Star Army of Yamatai](#), there is no specific limitation keeping it from being used in civilian clothing provided civilian technologies and materials are employed.

Dataweave is created by weaving stretchy electrical circuits and tiny components in a slightly less (but still notably) stretchy substrate. This substrate tends to be an electronic insulator to prevent short circuits except in specific cases where antennae or exposed connections are desired. It also protects the electronics against water or other forms of liquid intrusion. Gaps in the substrate allow air movement from one side of the Dataweave to the other without compromising the electronics. Arrays of wires serving as the equivalent of grounding planes or even very small grounded wrappings around circuits or conductors are common. It is also possible for there to be redundant circuits and components so that a damaged or overloaded section of the outfit does not lead to a loss of function. The degree of overload or outfit damage sustainable while maintaining function varies, but 75% of any given permutation of damage is a minimum rough target for military concepts or other hardened purposes. It is also common to employ sensors and emitters in the design for added functionality. Dataweave can be made from a spandex (elastane) substrate for civilian uses, but Dataweave designed for conceptual Star Army equipment tends to employ [Yarvex](#) in its design.

Dataweave is not worn by itself but is rather worn between at least two layers of other materials. It has sufficient anchoring density in its weave with adjacent layers so as not to feel unnatural in this application.

- Producers: [Yugumo Corporation](#), [Ketsurui Zaibatsu](#), Other Manufacturers
- Cost: Inexpensive

Properties Breakdown

- Adds sensory, display, data processing, and networking potential to fabrics and clothing
- Inexpensive to produce
- Sometimes redundant in cases of significant damage.

OOO Notes

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