

## Image: 3-D-molded interconnect devices

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Credit: ESA/Art of Technology AG

An alternative to conventional circuit boards, these '3-D-molded interconnect devices' add electrical connectivity to the surface of three-dimensional structures.

The aim is to combine mechanical, electronic and potentially optical functions in a single 3-D part, allowing the creation of intricate,

precisely aligned designs using fewer parts while delivering significant savings in space and weight compared to conventional electronic manufacturing.

"These prototype interconnect devices were produced using injection-moulded plastics incorporating electrical metallisation," explains ESA's Jussi Hokka. "In principle, however, other materials can also be used, allowing the incorporation of sensors or the integration of shielding or [cooling systems](#)."

Provided by European Space Agency

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