

The BATCHCIRCUIT-5 — a five-head, nine-needle flat platform, shown stitching five identical circuit-board substrates in parallel.

PARALLEL SENSOR / PATCH PRODUCTION

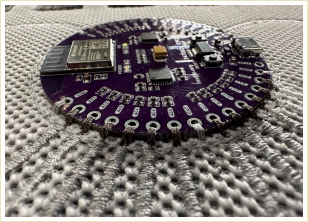
BATCHCIRCUIT-5

Five identical sensor patches per cycle — the parallel-production sensor line.

A five-head, nine-needle high-speed flat platform that produces five identical sensor patches, electrode arrays, or smart-textile units in parallel. When a design is locked, this is how you scale it — one operator's stitchout time becomes five units of throughput.

WHY THIS MACHINE

Five-head parallelism turns a single operator's stitchout time into five units of throughput. For sensor companies shipping production patches, biosignal electrode arrays, or wearable circuit substrates, BATCHCIRCUIT-5 is the bridge from prototype to product.



Parallel 5-up sensor patches

CAPABILITIES

- Parallel sensor / electrode / patch production (5-up)
- Identical conductive trace geometry across all five heads
- 9-needle thread library per head — multi-conductor designs
- Commercial throughput at 1,200 spm
- 200 × 500 mm field per head

IDEAL FOR

Sensor product companies, electrode array manufacturers, and smart-textile OEMs in pilot production and scale-up labs.

SPECIFICATIONS

Configuration	9 needles × 5 heads
Functions	Flat • Parallel patch / sensor production
Embroidery area	200 × 500 mm (per head)
Maximum speed	1,200 spm
Control	7" colour touchscreen LCD
Drive	Servo main motor
Voltage	Standard 120 V (wide-input 80 – 260 V)
Power	150 W — quiet operation
Machine size	1,950 × 1,130 × 1,300 mm
Net weight	690 kg

SAMPLING Bring your spec — we'll stitch a sample on this platform at our showroom.

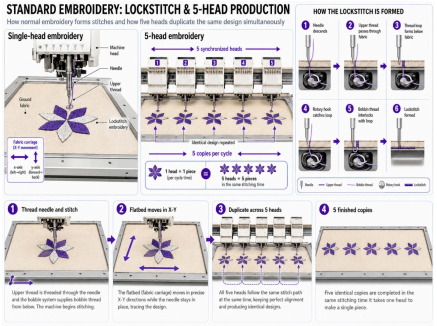
PRICING Contact for current pricing and availability.

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FROM LOCKED DESIGN TO PRODUCTION

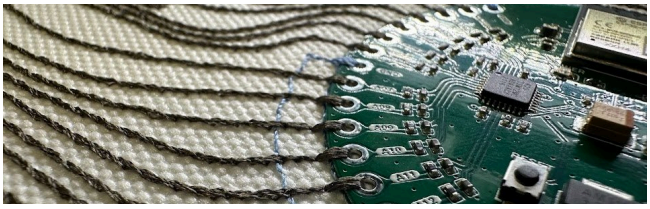
Five Identical Copies, One Stitching Cycle

Once a sensor patch, electrode array, or circuit substrate is proven, the BATCHCIRCUIT-5 reproduces it five at a time. All five heads follow the same stitch path simultaneously, so every copy carries identical conductive trace geometry — turning a single operator's stitchout time into five finished units.



THE PROCESS · LOCKSTITCH & 5-HEAD PRODUCTION

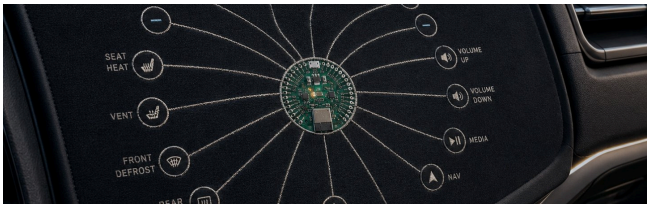
How 5-head works Each head threads a needle and forms a lockstitch as the flatbed carriage moves in X and Y, tracing the design. All five heads share that same motion at once — so in the time a single head makes one piece, the machine completes five identical copies in perfect alignment.



CONDUCTIVE TRACES · SENSOR SUBSTRATE

Stitched circuit substrate

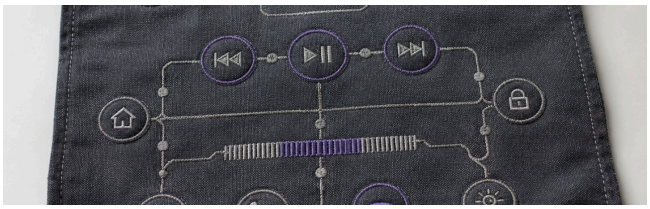
A circuit board joined to woven fabric by a fan of conductive traces stitched directly into the textile — the production sensor unit this platform reproduces five at a time.



SMART TEXTILE · AUTOMOTIVE

Embroidered control surface

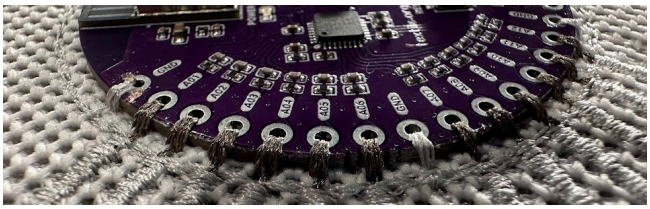
A full set of capacitive controls stitched into an automotive dash panel, each icon wired back to a central board with conductive thread — smart-textile interfaces at production scale.



CAPACITIVE · TOUCH INTERFACE

Embroidered touchpad

A media-control touchpad rendered entirely in conductive and decorative thread — proof that finished, repeatable interface patches come straight off the heads.



WEARABLE · SENSOR PATCH

Round sensor patch

A round sensor board bonded into stretch knit with a ring of stitched leads — the kind of wearable circuit substrate the five heads turn out in identical batches.

Built to scale a locked design. Nine needles per head give a full multi-conductor thread library, identical trace geometry holds across all five heads, and 1,200 spm keeps commercial throughput — taking a proven sensor patch, electrode array, or circuit substrate from prototype to production batches in one platform.

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