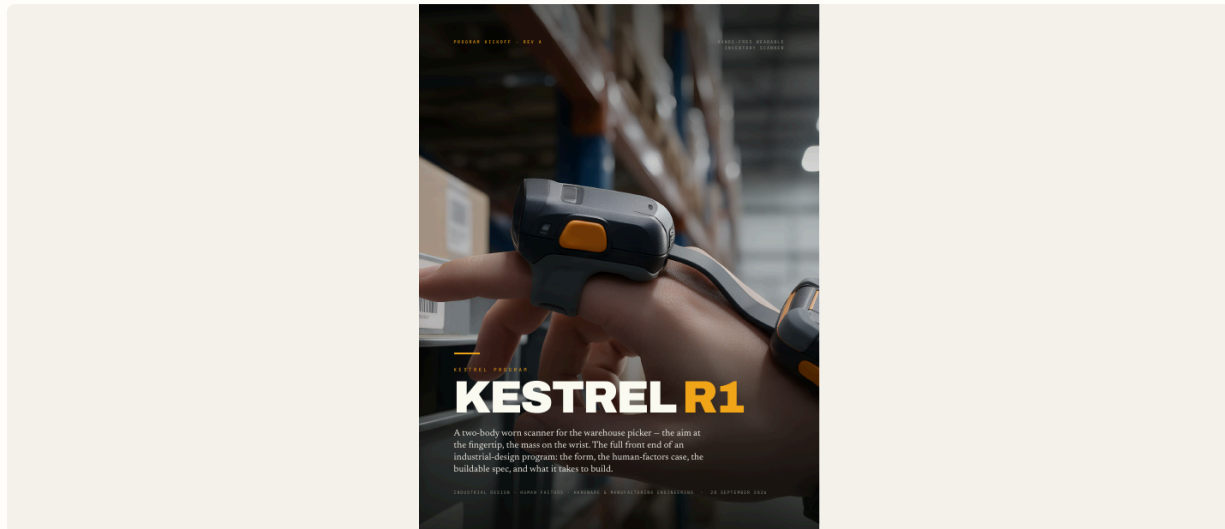


Start here

Open this first: **Kestrel R1 — Program Dossier.**



Kestrel R1 is yours — the full front end of a real product program, bound into one document. Open the Program Dossier first: seventeen pages that read as one continuous argument, the renders carrying it. The two-body split is the whole idea and the dossier defends it from four angles at once — the form derived from the hand, the human-factors case built on real anthropometrics and named safety standards, a spec that's true to its standards (SE4770-class imager, BLE 5.2, IP65 base with an IP67 option, 1.8m to concrete per MIL-STD-810H, the freezer SKU), and a cost/BOM pass that's honest where it counts: the imager is the dominant line, the program needs volume to pencil, and the ranges are wide because that's the truthful state of the numbers at kickoff, not fake precision.

Everything else in the kit sits behind the dossier for the hardware team: the six renders on their own, and the full-text source of each discipline — the design concept, the ergonomics reasoning, the spec, and the cost pass — so anyone on your side can work straight from the numbers.

One honest note on the renders: the two close macro crops (the scan module and the hot-swap battery) show the finger module reading a touch chunkier under the tight lens than in the clean studio and exploded frames — that's normal proportional

variance under a macro, not a different device. The form, colorway, and every feature are identical across all six frames, verified.

What is in the kit

1 **Kestrel R1 — Program Dossier** (open this first)

`dossier/ring-scanner-program-dossier.pdf`

The whole program in one document — the form, the human-factors case, the buildable spec, and the cost/BOM pass, with the renders as its life. Open this first.

Filed under Extras

2 **Industrial design concept — full text**

`Extras/concept.pdf`

Dieter's complete design concept: the form narrative, the two-body argument, the material and colorway defense.

3 **Human-factors reasoning — full text**

`Extras/human-factors.pdf`

Maren's ergonomics document: anthropometrics, the mass/moment argument, glove sizing, thermal, and the twelve-hour fatigue case.

4 **Technical specification — full text**

`Extras/spec-sheet.pdf`

Priya's buildable spec: scan engine, connectivity, battery/runtime math, environmental ratings, materials, feedback.

5 **Cost & BOM pass — full text**

`Extras/cost-bom.pdf`

Priya's cost pass: BOM by subsystem, tooling and NRE, target unit cost, and the prototype-to-production path in USD.

6 **Hero render — worn, scanning**

`Extras/hero-worn-warehouse.png`

The lead render: the device on the picker's hand, scanning a bin.

7 **Architecture — the two-body split**

`Extras/architecture-exploded.png`

The scan module, wrist pack, and flex bridge separated, with the hot-swap cell pulled from the bay.

8 **Colorway — graphite, amber, grey**

Extras/colorway-hero.png

The material and color story off the hand.

9 **Detail — scan module**

Extras/detail-scan-module.png

The recessed hooded window and amber trigger paddle, close.

10 **Detail — hot-swap battery**

Extras/detail-wrist-pack-battery.png

The ten-second slide-and-latch cell, mid-swap.

11 **Detail — glove-first mount**

Extras/detail-strap-mount.png

The mount worn over a work glove — the cam-and-loop closure a gloved hand finds by feel.