

knit i

An AI inspector on every knitting machine

Knit-i watches the fabric on the machine as it is knitted, finds the defect the moment it appears, and stops the machine before the roll is lost.

01 · WHAT IT DOES

Inspect and act, in real time

Manual inspection is late, partial, and depends on skilled people you are short of. It also does nothing to stop the machine repeating the same fault, revolution after revolution.

01 — DETECT

On the machine

The camera watches the fabric as it is formed, under Knit-i's own lighting — so night shift looks the same as day shift.

02 — ACT

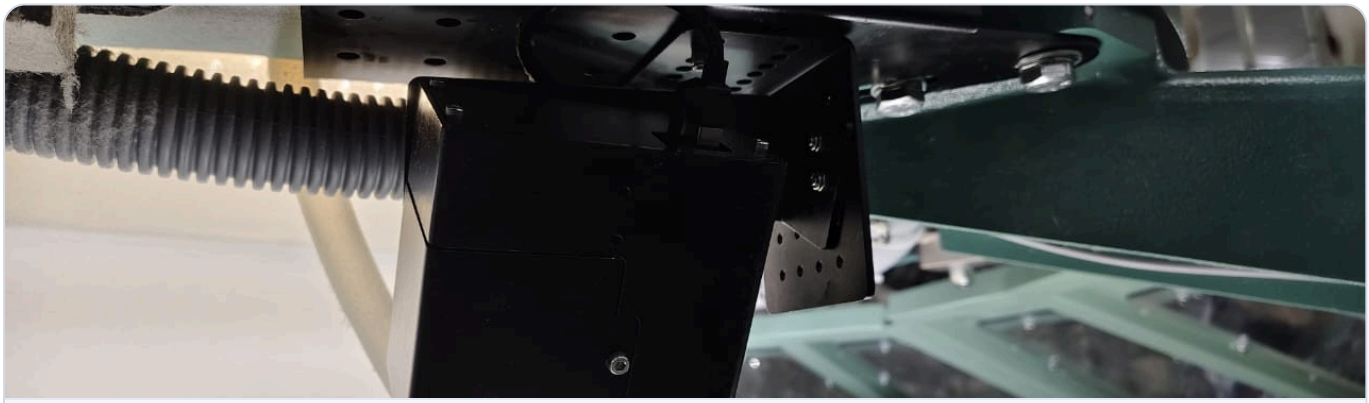
Stop the fault

Alert the operator, and stop the machine on a continuous defect — before metres of fabric are produced.

03 — RECORD

Every time

Every defect logged with its type, its position in the roll, the time, and the image the camera captured.



The camera and its bracket, mounted beneath the cylinder ring on a production machine. Angle and standoff are set at commissioning for your diameter and gauge.

The difference is not better inspection. It is that the defective fabric is never knitted in the first place.

18
months or less

It pays for itself

Across the mills running Knit-i, the system returns its cost within eighteen months — and considerably sooner where elastane is run, because a single undetected elastane fault can cost an entire roll.

02 · WHAT IT CHANGES

What changes on your floor

Catching the defect on the machine is the mechanism. These are the three things it is for.

01 — FABRIC

Less fabric lost

The fault is caught where it begins and the machine is stopped, so what is lost is metres rather than rolls. Fewer seconds, fewer rejections, and less fabric knitted a second time.

02 — PEOPLE

Less dependence on manual checking

Every machine is watched on every shift, to the same standard at 3am as at noon. Your people move from looking for defects to acting on them, and quality stops depending on who is on duty.

03 — DELIVERY

Deliveries you can commit to

Fewer surprises at final inspection and less re-knitting, so orders leave when you said they would — and every roll carries its own record to show the buyer.

- **The night shift looks like the day shift.** Knit-i brings its own lighting and applies one standard, hour after hour.
- **A repeating fault is stopped, not recorded.** The machine is halted on a continuous defect instead of knitting it for another hour.
- **The quality record writes itself.** Roll by roll, with images — nothing for anyone to fill in, and nothing to reconstruct when a buyer asks.

Less fabric lost. Less dependence on manual checking.
Deliveries you can promise.

03 · WHERE IT RUNS

Proven on production floors, not in a laboratory

30+	7	2026	0.1mm
factories	countries	Intel Edge AI Software Award	defect resolution

India · Bangladesh · Sri Lanka · Türkiye · Uzbekistan · Peru · Indonesia

INTEL® EDGE AI SOFTWARE AWARD · 2026

Awarded for software running AI at the edge — which is exactly what Knit-i does on every machine, with no connection to anything required.

SOME OF THE MILLS RUNNING KNIT-I

KPR · Jay Jay Mills · PALLAVAA GROUP · Poomex the Ultimate... · Arti · Zelal UZBEKISTAN

04 · COVERAGE

One system.
Every fabric you run.

Knit-i is not tuned to a single article. It is running today on plain and patterned fabric, on light shades and dark melange, on tubular and open-width, across every major machine brand in circular knitting.

DEFECTS DETECTED

Needle line	Holes & small holes	Elastane cut	Elastane jump	Yarn cut
Press off	Double yarn	Thick places	Knit fly	Wild yarn
Tuck defects	Drop stitch	Count mix	Oil spots	Oil stripes

FABRICS

Whatever is on the machine

Single jersey · Interlock · Rib jersey · Fleece — tubular and open-width in every case. Plain, melange, slub and designed constructions. Light shades through to dark melange, where contrast is hardest and most systems give up.

MACHINES

Whatever you have bought

Fukuhara · Monarch · Mayer & Cie · Terrot · Pailung · Vanguard · LEADSFON · Santoni · Pilotelli and others. The mounting is adapted at commissioning — nothing is added to the working width, and no machine modification is required.

0.1 mm	90 RPM	100+	100%
defect resolution	machine speed	fabric types	of the fabric inspected

05 · CAUGHT ON THE MACHINE

What it sees

Every image on this page and the next was captured by Knit-i on a running production machine.



Needle line — for most mills, one of the two most common defects.

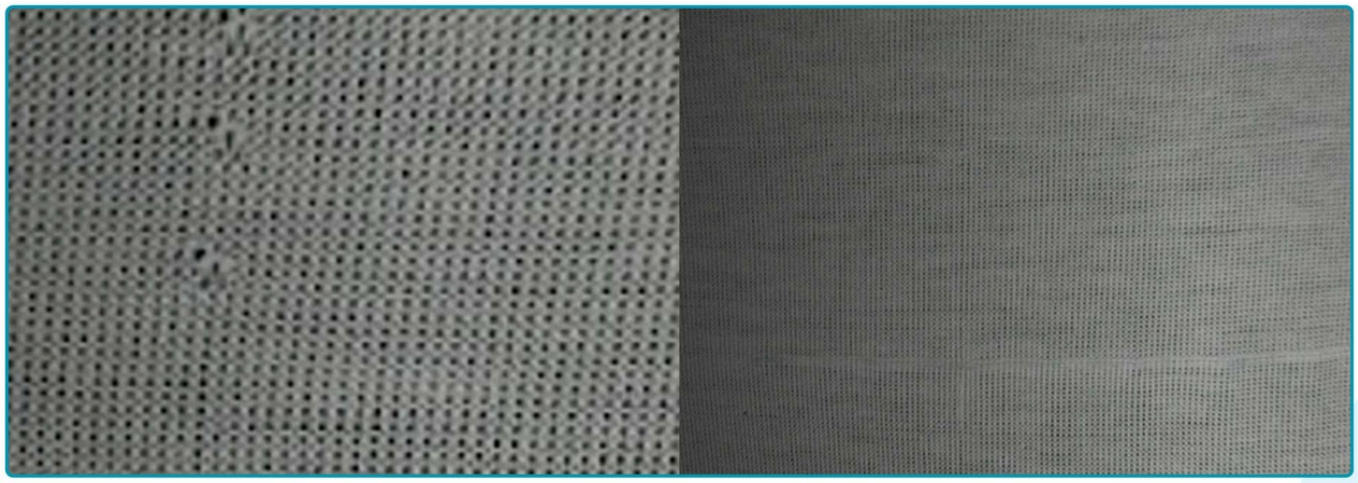


Holes and small holes — caught at the course where they begin.

05 · CAUGHT ON THE MACHINE



Elastane defects — cut, jump and mix. Elastane jump is the reason for the second camera: it is not reliably visible from the reverse of the fabric.



Tuck defects and wild yarn.

Defects visible to the human eye on the machine are captured by the system. The above applies to plain fabrics; for melange, slub and design fabrics similar detection is expected, with final determination following on-site testing.

06 · ON THE MACHINE

What actually gets fitted



Cameras and lights mount flat beneath the cylinder ring. Nothing is added to the working width of the machine.



The fabric under Knit-i's own lighting — what makes dial-side and elastane defects visible.

Image acquisition	Industrial camera + lens, 2 per machine
Illumination	Knit-i's own light source, 4 per machine
Processing	Edge AI engine, Linux, at the machine
Operator panel	Touch screen on the machine head
Mounting	Slotted brackets, set at commissioning
Power protection	In-house circuit for unstable mains
Defect resolution	0.1 mm
Machine speed	up to 90 RPM
Fabric types	100+

All of it designed and built by CountAI in Coimbatore, India — the camera, the lighting, the processing unit and the software. We are not integrating someone else's hardware, which is why we can adapt the mounting to your machine rather than ask you to adapt to ours.

Your data stays where you want it. Inspection, classification and machine stopping all happen on the machine, with no network of any kind. An on-premise server is optional. Cloud is optional and can be switched off entirely. Documented APIs let your maintenance, quality and production systems read the data.

07 · WHAT COMES OUT

The inspection report writes itself

One row per roll, generated without anyone entering data. This is a real report from a machine in production.

S.NO	SUBLOT ROLL NUMBER	START TIME	END TIME	TOTAL TAKEN	NO OF REVOLUTIONS	LYCRA	NEEDLELINE	HOLE	OTHERS	DECISIONS
1	250	04:06	06:04	1h58min	2550	2	0	0		
2	251	06:04	06:15	0h10min	189	0	0	0		
3	252	06:15	08:40	2h24min	2550	3	0	0		
4	253	08:40	09:11	0h31min	549	0	0	0		
5	254	09:11	11:32	2h21min	2550	0	0	0	shutoff: 1	
6	256	11:32	11:59	0h27min	549	0	0	0		
7	257	11:59	16:14	4h14min	2311	1	0	0	shutoff: 1, twoply:2	
8	258	16:14	17:33	1h18min	789	0	1	0	twoply: 1	
9	259	17:33	20:39	3h6min	2550	0	0	0	Shutoff: 1	

Roll number, start and end time, duration, revolutions, and a count of each defect type found in that roll.

S.NO	DEFECT NAME	LOCATION	TIME OF DEFECT	DEFECT
1	LYCRA	556	4:57am	VIEW
2	DOUBLE YARN	797	5:10am	VIEW
3	HOLE	866	5:15am	VIEW
4	HOLE	1809	5:20am	VIEW
5	HOLE	1851	5:24am	VIEW
6	LYCRA	1900	5:44am	VIEW
7	PRESS OFF	2112	6:01am	VIEW

Every individual defect — what it was, how far into the roll, the time, and a link to the image the camera captured.

LENGTH

Revolutions counted

Rolls doff at a consistent length, and the quantity in each roll is known.

POSITION

Every defect placed

A roll can be cut or downgraded at the right metre rather than as a whole.

TIME

Every defect timed

Quality can be related to what the machine was doing at that moment.

08 · ACROSS THE FLOOR

Every machine, live



Machine view — the latest defects with their images, current RPM, rolls produced and total doff.



Floor view — running or stopped, and for how long, across the whole knitting hall.

knit i

Let's put an AI inspector on every one of your machines.

Send us a short video of one machine running and we will tell you the configuration before you commit to anything.

18
months or less

Return on investment

Proven at 30+ factories in seven countries.

TALK TO US

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Watch the video