TriLumen Systems

CASE STUDY

Mid-Size Manufacturer · Equipment Maintenance Automation

Turning a Broken Machine Into a Self-Routing Ticket

THE CHALLENGE

On a manufacturing floor, every minute a critical machine sits broken destroys margin. A manual process, clipboards, phone calls, emails to a maintenance team, is too slow to catch that bleeding before it adds up.

OUR APPROACH

We replaced the paper trail with a three-button mobile form. An operator taps the machine ID, selects the issue type, photographs the fault, and submits. From there, a single automated flow branches three ways at once: an instant, photo-attached alert to the maintenance team, an automatic flag in the production schedule so a broken machine can't be accidentally assigned new work, and a live inventory check for the failed part.

If the part isn't in stock, the system doesn't wait on a human to notice. It drafts a purchase request automatically. Below a set cost threshold, it approves and submits the order itself. Above that threshold, it escalates to the plant manager with the machine's downtime cost per hour shown right next to the part cost, approvable from a phone notification.

When the technician closes the ticket, the system calculates the full downtime duration automatically and logs it, feeding a live dashboard tracking mean time to repair, monthly cost of downtime, and which equipment fails most often.

THE RESULT

45 min → under 30 sec

Time to report a fault

What used to depend on someone finding the right person to call became a self-routing system, alerting the right team, protecting the schedule, and even purchasing its own replacement parts within a set budget, all without a single manual handoff.

> *"When a critical machine went down on the plant floor, our old process relied on clipboards, phone calls, and shouting across the room. TriLumen built a simple mobile form for our operators. Now a broken machine instantly alerts the maintenance team, flags our production schedule, and can even auto-purchase replacement parts under a set budget, saving us hours of painful downtime."*
>
> PLANT MANAGER, MID-SIZE MANUFACTURING FACILITY

Have a Problem That Looks Like This?

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