

MANUFACTURING & INDUSTRIAL MODERNISATION

Track machine downtime on a textile production line

Textile manufacturer • Bulawayo



See where and why machines stop on a textile production line, while it is happening.

POSTED BY	Textile manufacturer • Bulawayo	PILOT BUDGET	US\$18,000
LOCATION	Bulawayo (factory access for matched teams)	APPLICATIONS CLOSE	8 Jan 2027
SUB-THEME	Manufacturing & Industrial Modernisation	TEAM SIZE	2-6 people

1 The problem

Background

The manufacturer runs knitting and sewing lines in Bulawayo with a mix of new machines and machines that are decades old. Supervisors record downtime on paper at the end of each shift.

What's going wrong

The paper records are incomplete and arrive too late to act on. Management cannot tell which machines, products or shifts lose the most time, so maintenance and spare-parts spending is guesswork.

2 What we need

A strong solution will:

- ✓ Capture machine run and stop time automatically, including on older machines.
- ✓ Record a reason for each stop with minimal effort from operators.
- ✓ Show live and weekly downtime by machine, line and shift.
- ✓ Keep the cost per machine low.

Constraints

- No changes to machine safety circuits.
- Power cuts are common, so devices must recover on their own.
- Operators work in noisy conditions; inputs must be simple.

3 Deliverables

By forum week, matched teams are expected to bring:

- 01** A prototype installed on at least two machines during the build phase.
- 02** A downtime dashboard.
- 03** Install cost and a plan for the full line.
- 04** A seven-minute pitch for forum week.

4 How teams are evaluated

Applications and final pitches are scored by the challenge owner and the ZBIF secretariat.

CRITERION	WHAT WE LOOK AT	WEIGHT
Fit to the problem	Does it solve the problem as the challenge owner describes it?	30%
Technical feasibility	Can the team build and run it with the resources available?	25%
Cost and scalability	Is it affordable to pilot, and to roll out if the pilot works?	20%
Team capability	Does the team have the skills and time to deliver?	15%
Local impact	Jobs, skills or value it keeps in Zimbabwe.	10%

Who can apply

- ✓ A registered ZBIF innovator account: innovators, consultancies, technologists, university teams or freelancers.
- ✓ At least one team member based in Zimbabwe.
- ✓ Able to attend forum week in Bulawayo on 27–28 April 2027 if shortlisted.
- ✓ IP ownership and pilot terms are agreed between your team and the challenge owner in the Deal Room.

5 Timeline

30 Sep 2026	Challenge posted
8 Jan 2027	Applications close
Within 3 weeks	Matching results sent to teams and the challenge owner
Until mid-April 2027	Build phase, with mentor and challenge-owner check-ins
27–28 Apr 2027	Live pitch and Deal Rooms at forum week, Bulawayo

6 Data and resources

Shared with matched teams after signing a simple data-use agreement.

Factory floor access	For matched teams
Six months of paper downtime logs	Scanned PDFs
Production engineer as point of contact	Weekly check-in

7 How to apply

- 01** Create a free innovator account at zbif.bulconsultancy.com, or sign in.
- 02** Open this challenge (ref ZB-106) and press **Apply**.
- 03** Tell us your team name, size and how you would solve the problem. Applications close on **8 Jan 2027**.

Questions about the brief can be asked from the challenge page. Answers are shared with every applicant.