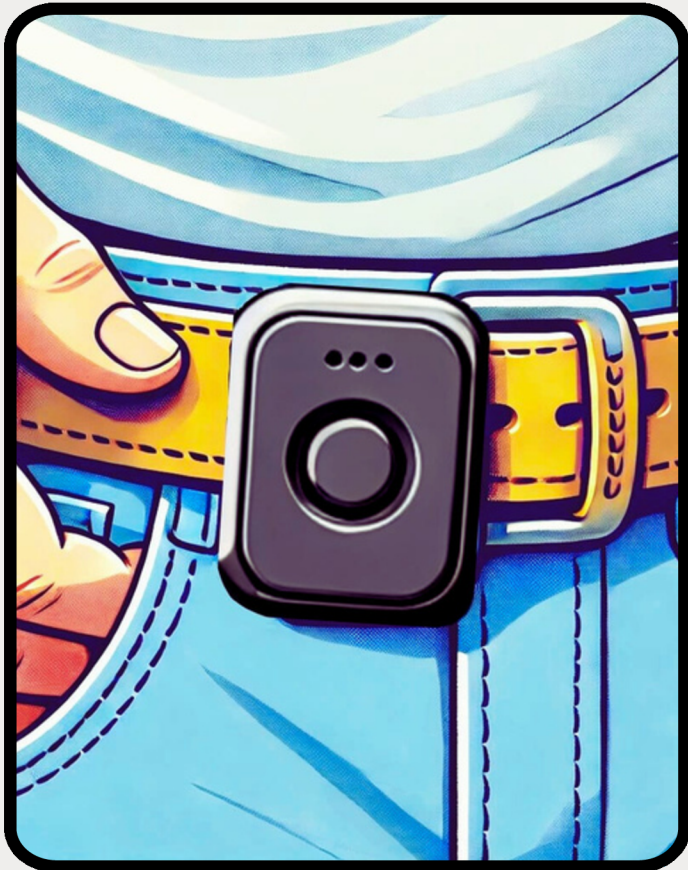# WORKSAFE

don't go undetected.

A WORKPLACE ACCIDENT DETECTION AND REPORTING SYSTEM, AIMED AT ACHIEVING A ZERO-ACCIDENT WORKPLACE.

Name: Dilshan
Age: 32
Blood Type: A+

✅ SAFE

Name: Bandara
Age: 52
Blood Type: B-

⚠️ Fall detected!

ENGINEERING DESIGN PROJECT 2025

- **230082G - Achintha Bandara**
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PROBLEM IDENTIFICATION

In Sri Lanka, workplace accidents cause significant injuries and fatalities, especially in sectors like mining and construction. Most common accidents include **falls**, being **struck-by, electrocution**, and exposure to **harmful gases**. Many accidents are **preventable** but often go **unnoticed**, leading to unfortunate fatalities that could otherwise be prevented with **timely intervention.**

SOLUTIONS

To address the above concerns, we propose a compact **wearable device** that can **detect** accidents and **report** them to a central monitoring system for rapid intervention.

We aim to detect:
1. **Falls**
2. **Crashes**
3. **Loud Screaming**
4. *Harmful Gas Exposure
5. *Drowning

This device also allows:
1. To monitor the **live location**
2. Geofencing
3. Report **workspace violence** discreetly

OBJECTIVES

- Make it **affordable** to the **local** market, ensuring safety for everyone from individual workers to employees at large corporations.
- Provide a compact yet effective safety device.
- Offer an **easy to use**, single button user interface.
- Allow **customization** of sensor configuration at purchase based on specific needs.
- Enable **flexible deployment**: either with a central station for larger industries or as a standalone device for individual workers.

STAKEHOLDERS

1. **Industries**
2. **Individual workers**

CONCLUSION

Our solution enhances workspace safety through **early detection** and **real-time** reporting. It stands out from the existing solutions by being **customizable** and accessible to the **local market**, while serving to a large user base.

*The exact configuration is coustomized based on industry/user needs.