

15802

## RISK DESCRIPTION

IAP: s5138877, Barber Jessy - Investigating the Health of a Footbridge using LoRaWAN technology

## TREND



## INHERENT

Medium

## CURRENT

Low

## RESIDUAL

Very Low

## RISK OWNER

Jessy Barber

## RISK IDENTIFIED ON

14/03/2023

## LAST REVIEWED ON

14/03/2023

## NEXT SCHEDULED REVIEW

14/03/2025

## RISK ACTIVITIES

## RISK FACTOR(S)

## INHERENT

## EXISTING CONTROL(S)

## CURRENT

## PROPOSED CONTROL(S)

## TREATMENT OWNER

## DUE DATE

## RESIDUAL

**Handling electronics**  
Will often handle sensitive electronics during the design and build process of the project. Electronics may have long lead times and delay the project.

Actively handling sensitive electronics: Risk of destroying components with ESD.

Very Low

Control: Wear electrostatic wristband when handling electronics.

Very Low

**Soldering electrical connections**  
Soldering electrical connections between electronics with a soldering iron in an electrical engineering lab.

Soldering electronic connections. Risk of burns & inhalation of solder fumes.

Low

Control: Eye protection and gloves.  
  
Control: Extractor fans / ventilation.

Very Low

**Working on the footbridge**  
Fastening three sensor nodes in their enclosures to the Griffith footbridge.

Sensor nodes need to be fastened to the footbridge. The footbridge is situated over busy highway traffic. There is a risk of dropping equipment onto the road below and causing an accident.

Medium

Control: The footbridge has protective railing.

Low

Design the module to be as small and lightweight as possible.  
Design a secure fitting so that there is no chance of the sensor nodes falling.

Jessy Barber

15/04/2023

Very Low

Plan where the sensor nodes will sit along the bridge before implementation. Gain approval from supervisor for field implementation of equipment.

Yong Zhu

14/04/2023

**Vibrating beam experiment**  
Conducting a vibrating beam

Risk of crushing or physical injury if not securely fastened.

Low

Control: Cannot enter labs without enclosed footwear.

Very Low

Ensure the space surrounding the experiment is clear. Ensure that distance is kept whilst the experiment is running.

Jessy Barber

31/03/2023

Very Low

experiment to test  
sensor nodes in a  
mechanical  
engineering lab.