A SAFER ROAD FOR CHILDREN

Presented by
Pedestrian Plus

Pedestrian concerns in school zones

Less students are walking to school due to pedestrian safety issues as the main barrier

4,440 child pedestrians were seriously injured 2002 - 2009...

204 children were killed.

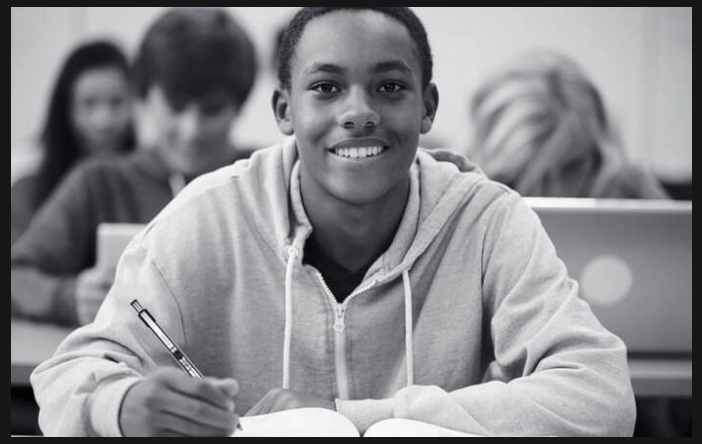
1971 - 2003 saw a 50% drop in NSW for children who walk to school due to behavioural risks like jaywalking and speeding

Problem Statement

Traffic safety in school zones have continued to show no significant signs of improvement, with no current mainstream solutions to address the visibility of pedestrian activity.

Target Audiences

Primary School Kids



High School Students

Drivers / Parents

Four Main Insights:

1 **Jaywalking:**
the easier choice

2 **Distractions:**
leading to unsafe habits

3 **Lack of awareness:**
confusion around school times

4 **Unpatrolled Crossings:**
leading to obstructed views and unsafe outcomes

CONCEPT 1:

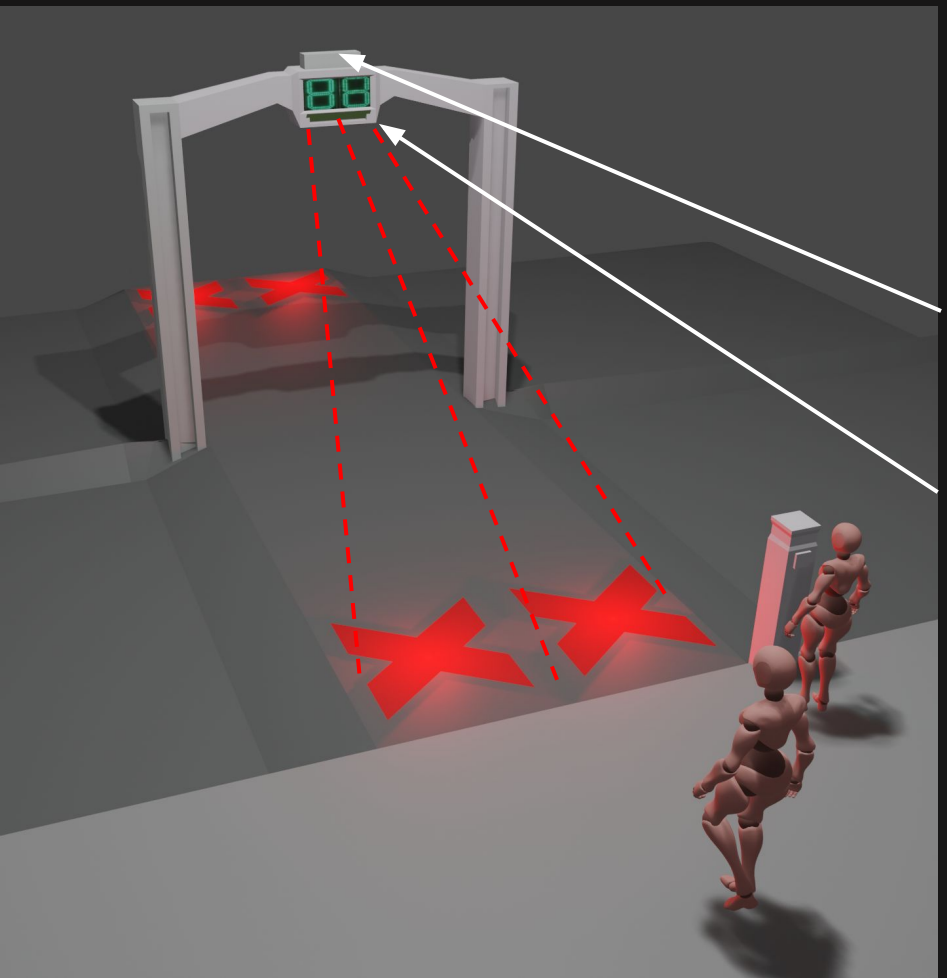
Flow

Designed for:

School zones on main roads. Designed to ensure pedestrians receive adequate time to safely cross whilst ensure traffic flow is disturbed as little as possible.

How?

Tracking the amount of students at the crossing to speed up the light change and adjust the crossing time to cater to the amount of people.



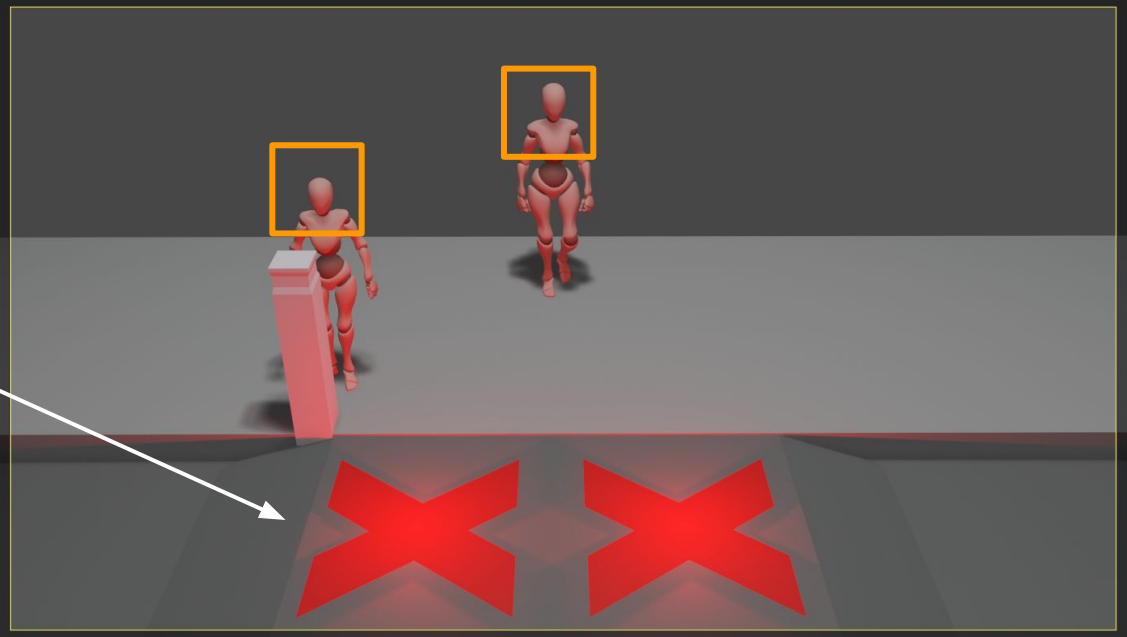
It uses:

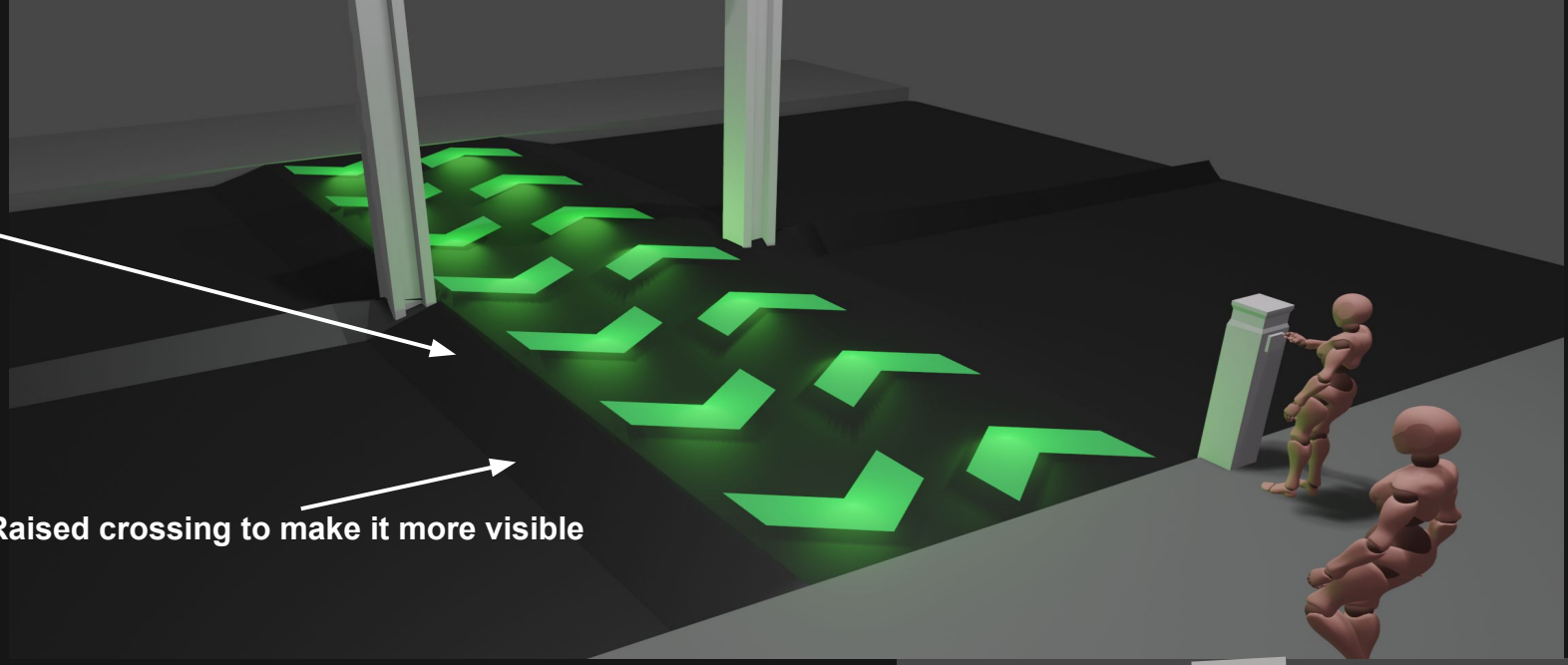
Facial detection cameras

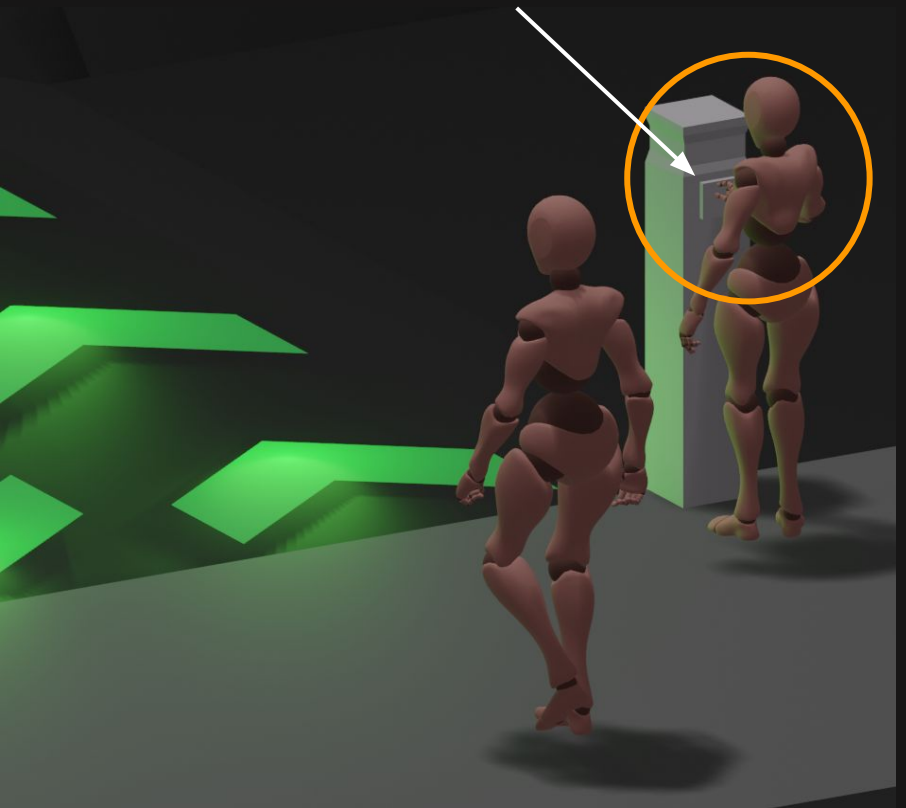
Projectors

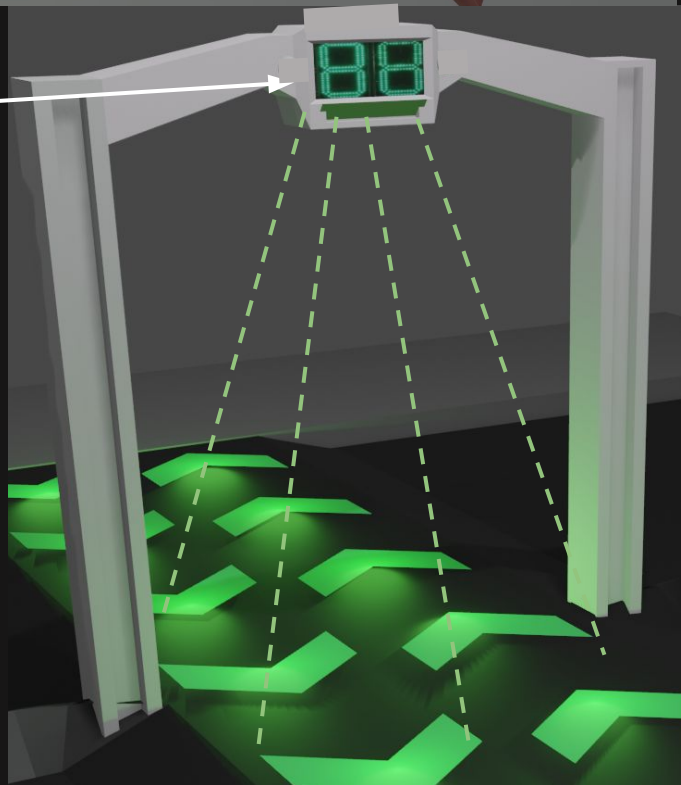
Projections to show crossing status

Facial detection cameras POV









Cons of design:

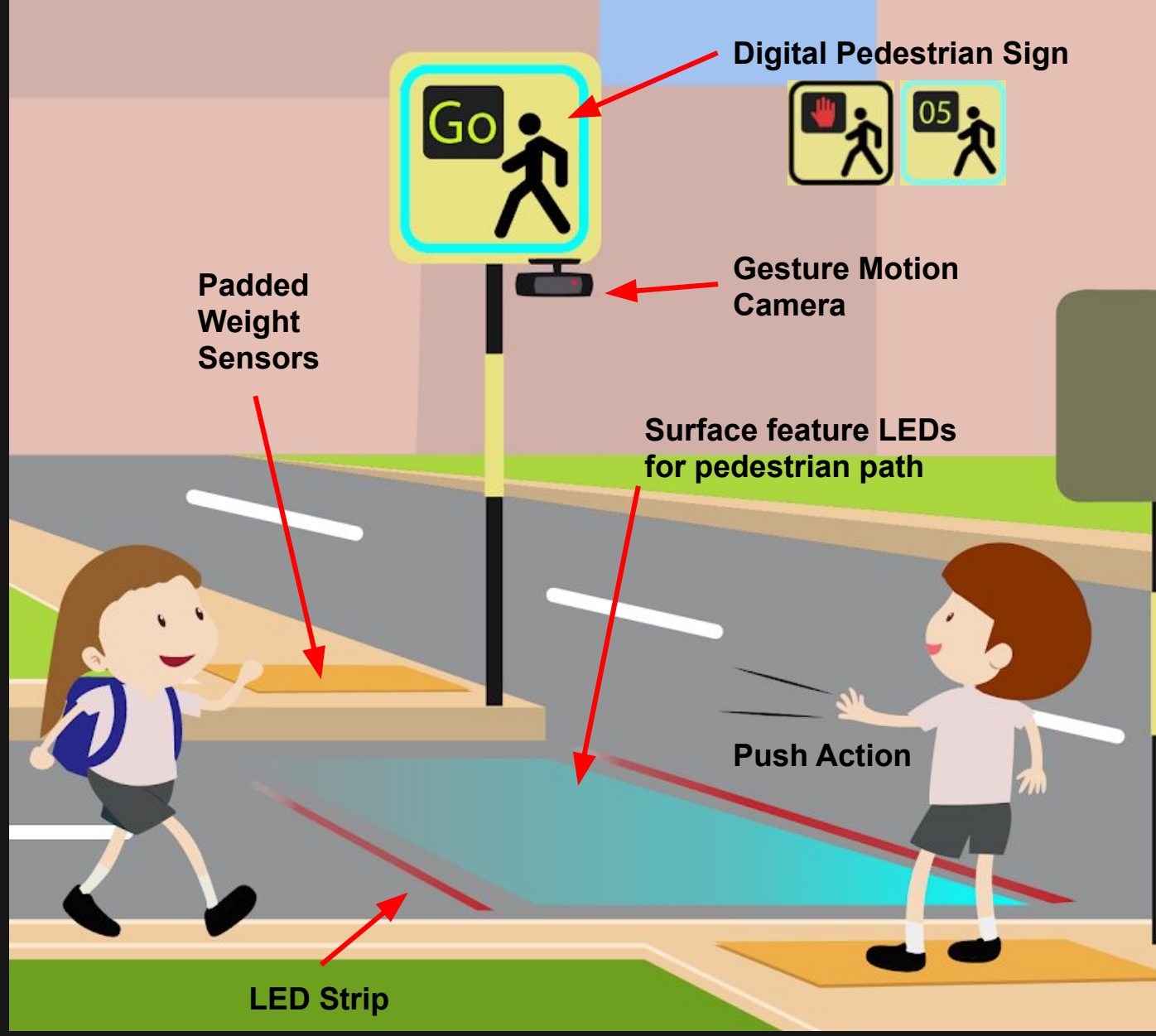
- Expensive to implement
- Projections might not be extremely visible in the day (may need a different solution)
- Minimal interactivity overall

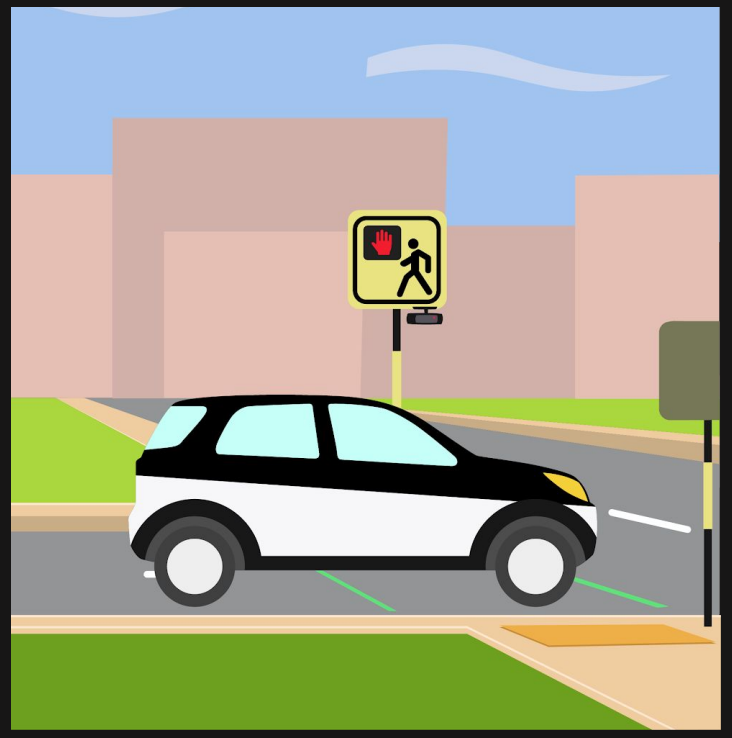
CONCEPT 2:

Magic Crossing

The aim of **Magic Crossing** is to place more of the onus on student pedestrians, to increase the appeal of using proper crossing facilities instead of jaywalking across streets.

“Captivation is an important principle for school children to achieve results due to increased intuition development” - **Fredericks et. al (2004).**





1.

When no one is at the crossing the LED outline of the road glows green for cars to cross over.

Also on the pedestrian sign there is a red hand to stop pedestrians from crossing.

2.

When a child walks up to the crossing they can gesture a push action to trigger the crossing to flow out before them.

The LED lights on either side become red to signify for cars to stop.

3.

Using weight sensors, it will start a 5 second count down when there is a break in pedestrian activity, providing a safety buffer to let distant pedestrians know not to cross.

CONCEPT 3:

Hostile Walker

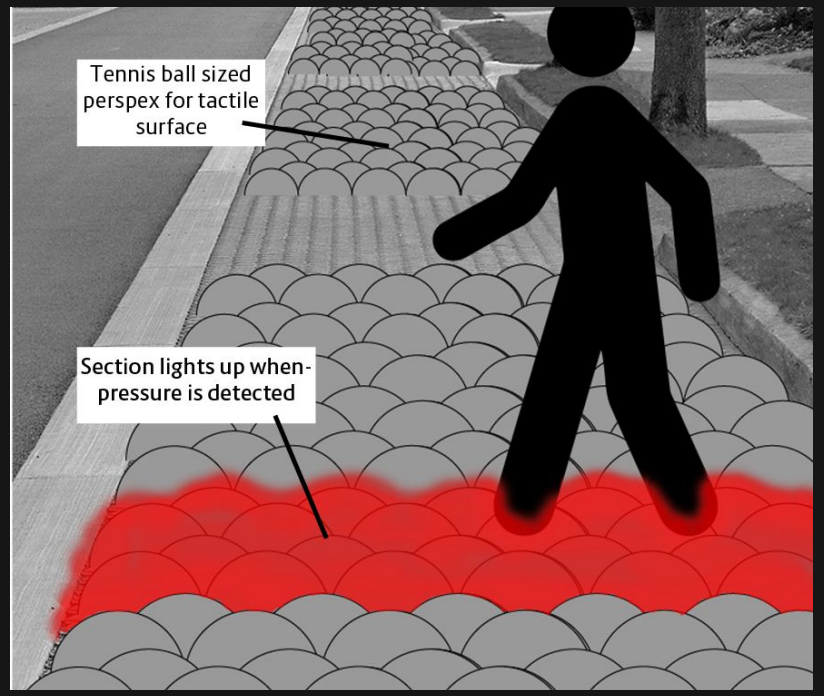
Hostile walker, synonymous with hostile architecture, is aimed at making certain areas less convenient to jaywalk.

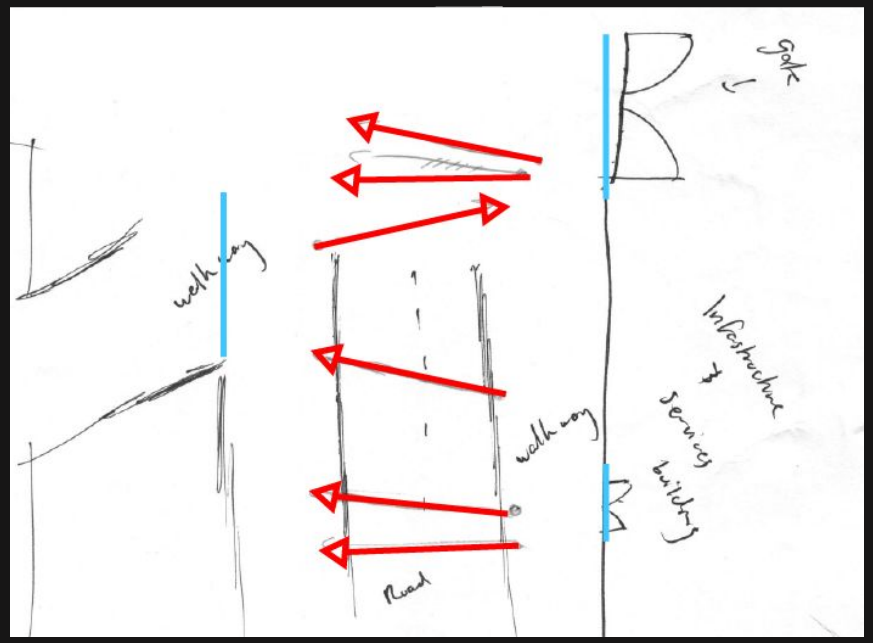
What is it?

The hostile walker is a **mobile tactile surface mat** that is reactive to pressure from people stepping on it, lighting up the section where pressure is sensed, **drawing drivers attention to jaywalkers**

Aim

To make it **less convenient to jaywalk** as it would require balance to go over the hostile walker.



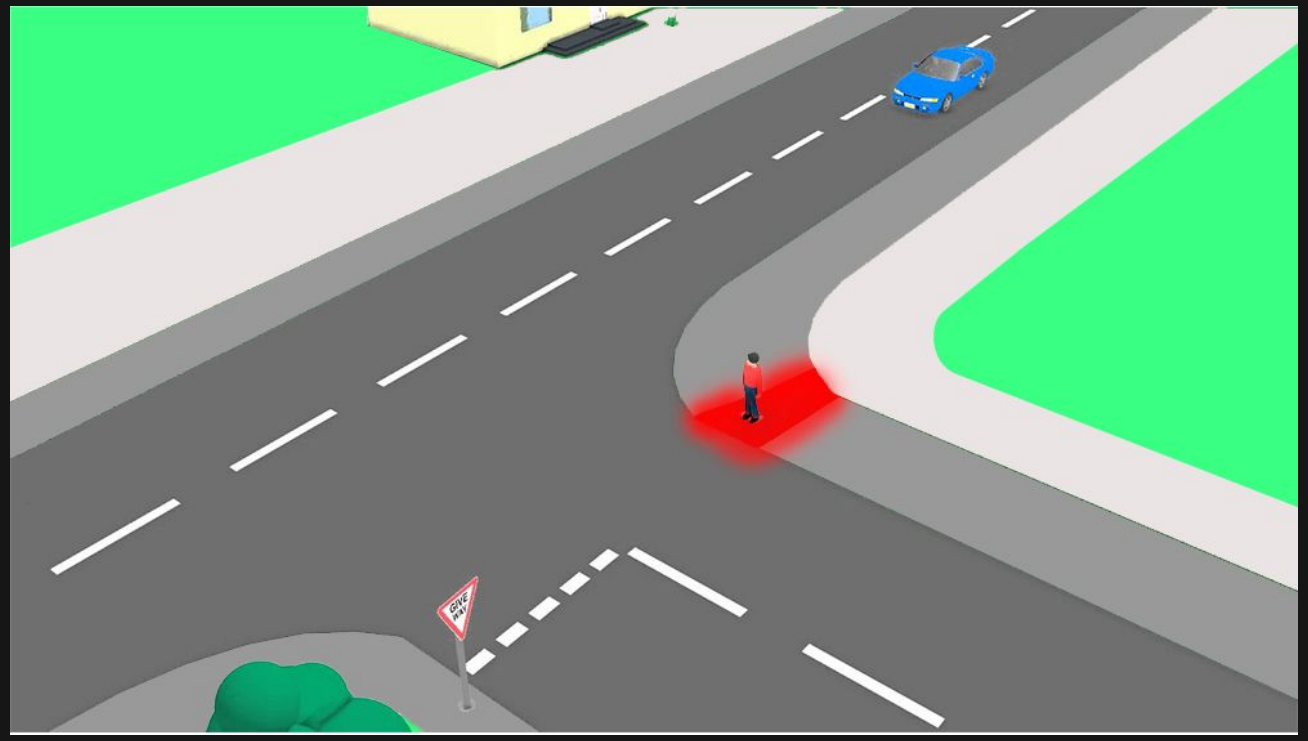


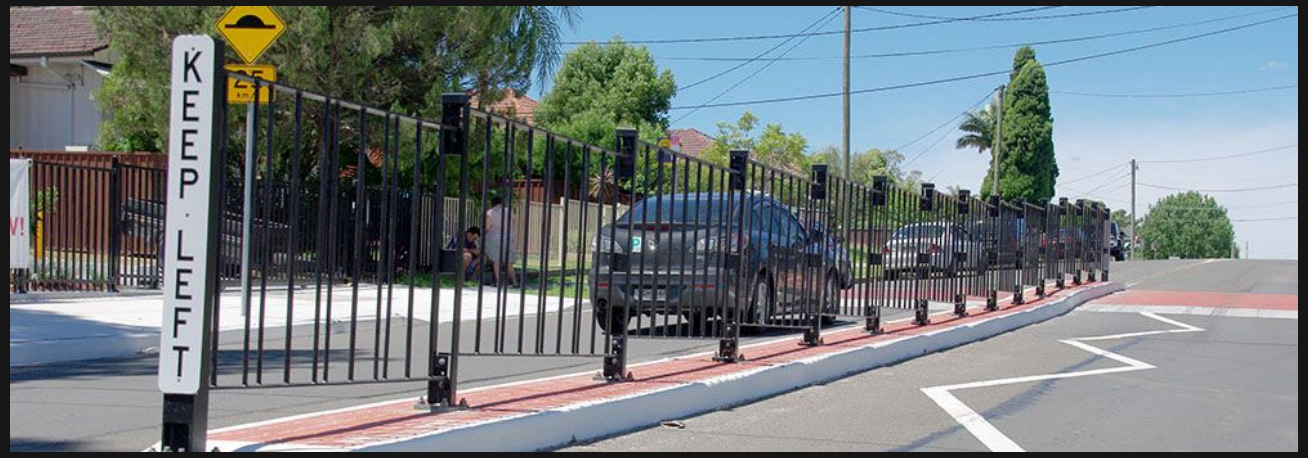
Pros

- Illuminates anyone jaywalking if they still choose to do so
- Not purely physical and affects the pedestrians subconscious by allowing them to make the choice yet still choose not to
- Can be moved in case there is something obstructing the pedestrian walkway

Cons

- Doesn’t completely stop jaywalking like pedestrian fencing
- Expensive to implement





Reflection

In conclusion our next plan is to conduct user research and testing to find the benefits and drawbacks of each concept whilst enhancing the interactivity of our designs to make for a more engaging, safe pedestrian experience.