



TRACK-A-THON

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Introduction

The leading cause of railroad-related injuries and deaths is trespassing along the tracks. Railroad deaths increased by 20% from 2020 to 2021 and will continue to do so unless the proper measures are taken. For this reason, we have devised an innovation that will save the lives of drivers, bicyclists, and pedestrians.





What are the safety issues faced at rail grade crossings or train tracks?

- Insufficient lighting for drivers or pedestrians passing by
- Being unaware of signs indicating an approaching train
- Not looking both ways before trespassing
- Disregarding active warnings at crossings
- Approaching railroad tracks absentmindedly

Why is rail grade crossing safety important to me and my community?

Rail grade crossing safety is essential to our community because it ensures the well-being and protection of the public. Teenagers make up a large percentage of those who are fatally injured in train collisions, so we would like to prevent the death of those close to us.



Rail Grade Crossing Innovation

Our innovation will reconstruct railroads by installing motion sensors that detect drivers, bicyclists, and pedestrians. If a train is approaching, the crossing gates will immediately descend, preventing anyone from trespassing. If a person were to attempt crawling under or over these crossing gates, an alarm will sound, and authorities will be informed.

If the railroad tracks are clear, the crossing gates will remain descended until a person follows the protocol enforced. There will be a keypad with a question and a person will have to input the answer. These will be simple questions that could be answered by anyone, such as "What animal is shown below?"

This will redirect their attention to the road ahead of them, bringing them to a state of complete awareness. The person has two attempts before being refused passage.





*How is
our innovation
going to save lives?*

Our innovation is going to save lives by augmenting the attention of those who are absentminded drivers, bicyclists, and pedestrians. The plan we have devised will ultimately lower the percentage of railroad-related deaths and injuries.

Target Audience

The target audience of our innovation is teenagers and young adults because they make up a vast majority of those involved in railroad-related complications. They are not as perceptive of their surroundings, which can be detrimental to the health of those directly involved as well as those around them. Our innovation will refocus their attention and bring them to their senses, which will ultimately save several lives.



A blurred high-speed train, likely a Shinkansen, is crossing a railroad crossing at sunset. The train is moving from left to right, creating a motion blur effect. The crossing features a white and red striped barrier and a signpost with a 'RAIL CROSSING' sign. The sky is a mix of orange and blue, indicating the time is either dawn or dusk. The overall scene is a composite image used for a safety message.

**STAY SAFE AND PROMOTE
RAILROAD SAFETY!**