SURAKSHA KAVACH
SAFETY
ROLLER

SCINTILLA-2023

PROBLEMS

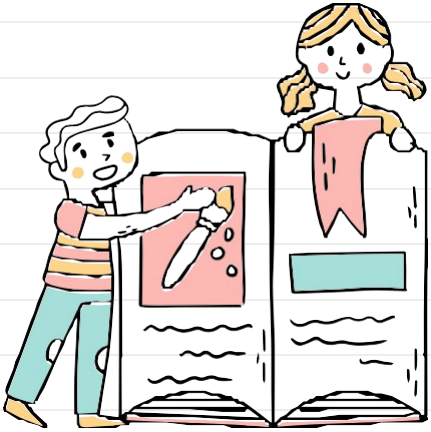
- High number of road accidents leading to loss of life and property.
- Inadequate safety measures to protect pedestrians and motorists.
- Urgent need for innovative solutions to prevent accidents.

METHODOLOGY

- A railing which will be installed in accident prone areas. Those railings will have rollers installed in between.
- When something moving fast, will hit them, the potential energy within the rollers will be transformed into kinetic/rotational energy. Thus the rollers will start to rotate.
- Instead of using traditional iron or steel materials which have both plastic-like and rubber-like properties are used.
- Using such materials allows the railings to bend to an angle, when something hits it or makes an impact. This also reduces the damage and shock braced by the car/thing that makes the impact/hit.

AIM

- Reduce the number of deadly accidents happen every year in the roads of Bharat.
- Reduce the damage that's incurred by both the car-owner and government to repair.
- Reduce the cost of fencing and making safety railings.



APPLICATIONS

- Hilly roads with sharp turnings
- Highways with always busy turnings
- Places which have blind-spots for drivers.
- Factories with heavy cars and trucks always going in and out.

MODEL

- A prototype designed to enhance road safety.
- Uses the concept of energy transformation and transfer.
- Embraces the impact of the hit, potentially reducing the amount of damage.

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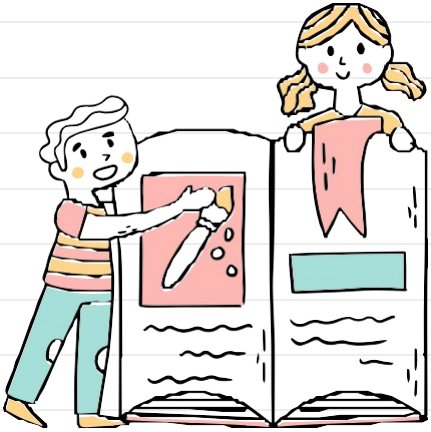

FUTURE

- Look into the material that will be used in the implementation on roads and other places . There are some materials that can be used like - Polyurethane, Ethylene Propylene Diene Monomer, Styrene-Butadiene-Styrene, Silicone Elastomers etc. But, this can vary from place to place.
- Look into what material should be used for the rollers and will try to make it more smooth and impact resistant.

THANKS!

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