

Ideation Phase

Brainstorm & Idea Prioritization Template

Date	19 September 2022
Team ID	PNT2022TMID53515
Project Name Project	Signs with Smart Connectivity for Better Road Safety
Maximum Marks	4 Marks

Define your problem statement

Design a smart connectivity solution for road safety signs that can detect and respond to changing road conditions in real-time, reducing the risk of accidents and improving traffic flow.

Problem

Current road safety signs are static and do not provide real-time information to drivers. This leads to accidents and traffic congestion, especially in areas with changing road conditions like construction zones or weather-related hazards.

Key objectives of solution being

- Real-time detection of road conditions
- Dynamic display of road safety information
- Improved traffic flow and reduced congestion
- Enhanced driver awareness and safety

Brainstorm

Brainstorm ideas for smart connectivity solutions for road safety signs. Consider the following questions:

- What data sources can be used to detect road conditions?
- How can this data be processed and analyzed in real-time?
- What types of dynamic displays can be used on road safety signs?
- How can the signs be connected to a central system for data processing and analysis?
- What are the potential challenges and risks of this solution?

Brainstorming session

During the brainstorming session, the team generated several ideas for smart connectivity solutions for road safety signs. The ideas were then prioritized based on their feasibility, impact, and cost.

Group ideas

The team generated several ideas for smart connectivity solutions for road safety signs. The ideas were then prioritized based on their feasibility, impact, and cost.

Group idea 1

The team proposed a solution where road safety signs are equipped with sensors that detect road conditions like construction zones or weather-related hazards. The signs are then connected to a central system that processes the data and displays real-time information on the signs. This solution is highly feasible and has a high impact on reducing accidents and improving traffic flow.

Group idea 2

The team proposed a solution where road safety signs are equipped with cameras that monitor traffic flow and congestion. The signs are then connected to a central system that processes the data and displays real-time information on the signs. This solution is also highly feasible and has a high impact on reducing accidents and improving traffic flow.

Group idea 3

The team proposed a solution where road safety signs are equipped with smart displays that can show dynamic information like traffic flow, congestion, and weather-related hazards. The signs are then connected to a central system that processes the data and displays real-time information on the signs. This solution is highly feasible and has a high impact on reducing accidents and improving traffic flow.

Prioritize

The team prioritized the ideas based on their feasibility, impact, and cost. The ideas were then ranked from highest to lowest priority.

Prioritization matrix

The team used a prioritization matrix to rank the ideas. The matrix has two axes: Feasibility (Y-axis) and Impact (X-axis). The ideas are plotted on the matrix and ranked from highest to lowest priority.

Ranking of ideas

The team ranked the ideas from highest to lowest priority. The ideas are ranked as follows:

- Group idea 1: Highest priority
- Group idea 2: Second priority
- Group idea 3: Third priority

