

1

Define your problem statement

Design intelligent Wirelessly connected smart road signs capable of displaying different speeds for different weather conditions, traffic and route traffic through the quickest and safest possible way.

5 minutes

Problem of
Rain makes brakes inefficient and leads to accidents

Problem of
Fog reduces visibility and increases the probability of accidents

Problem of
School Zone flags slow down traffic even when schools are closed/operating

Problem of
Road quality varies over time but static road signs don't

Problem of
Traffic diversion required human intervention

2

Brainstorm

Write down any ideas that come to mind that address your problem statement.

10 minutes

LIVINKA

Using camera to measure visibility
cloud server calculates speed for every point in map
using open weather app to get data on weather
automatic traffic diversions
signs that display based on environment (lighting, darkness)

DIVYA DHARSHINI

Camera attached to every traffic sign to monitor traffic
School timings set to road signs
Server monitors road quality and speed is suggested based on road quality
lane runner sign warns vehicles on entry into through traffic
Remote view capability to pan route

SAMYUKTHA

AI based image processing to detect road wet roads
School and hospital zones dynamically set road signs speed
vehicle based lane display
accident detection and diversion
Timer displaying how much time for traffic to clear out

LATIFA BANU

AI based algorithms to predict weather from images
every sign post measures surrounding traffic
emergency vehicle passage and alerts
Dynamic traffic sign capable of showing peaks to cross the road
Fun things to display during red light traffic

3

Group Ideas

Take turns sharing your ideas while clustering similar or related notes as you go. In the first 10 minutes, give each cluster a sentence like label. If a cluster is bigger than six sticky notes, try and see if you can break it up into smaller sub-groups.

20 minutes

cloud server calculates speed for every point in map
using open weather app to get data on weather
Remote view capability to pan route

School and hospital zones dynamically set road signs speed
School timings set to road signs
lane runner sign warns vehicles on entry into through traffic
Dynamic traffic sign capable of showing peaks to cross the road
Fun things to display during red light traffic

Timer displaying how much time for traffic to clear out
Camera attached to every traffic sign to monitor traffic
Using camera to measure visibility
AI based image processing to detect road wet roads
every sign post measures surrounding traffic
AI based algorithms to predict weather from images
AI based algorithms to predict weather from images

vehicle based speed and lane display
accident detection and diversion
lane runner sign warns vehicles on entry into through traffic
automatic traffic diversions
emergency vehicle passage and alerts

4

Prioritize

Your team should all be on the same page about what's important moving forward. Place your ideas on this grid to determine which ideas are important and which are feasible.

20 minutes

