

Nijigaku Traffic Radio

Background

Traffic Radio channels are the effective tools to **connect people**, especially drivers driving on the road. They **inform** drivers about their local situation and **update** news about the accident, and traffic jams. However, the Traffic Radios still have some cons to improve.

Conventional Traffic Radio Stations:

- Broadcast lot of unnecessary news/information
- Sometimes annoying
- Not interactive

We aim to design an **internet-based Traffic Radio** that overcomes the disadvantages for better connecting people.

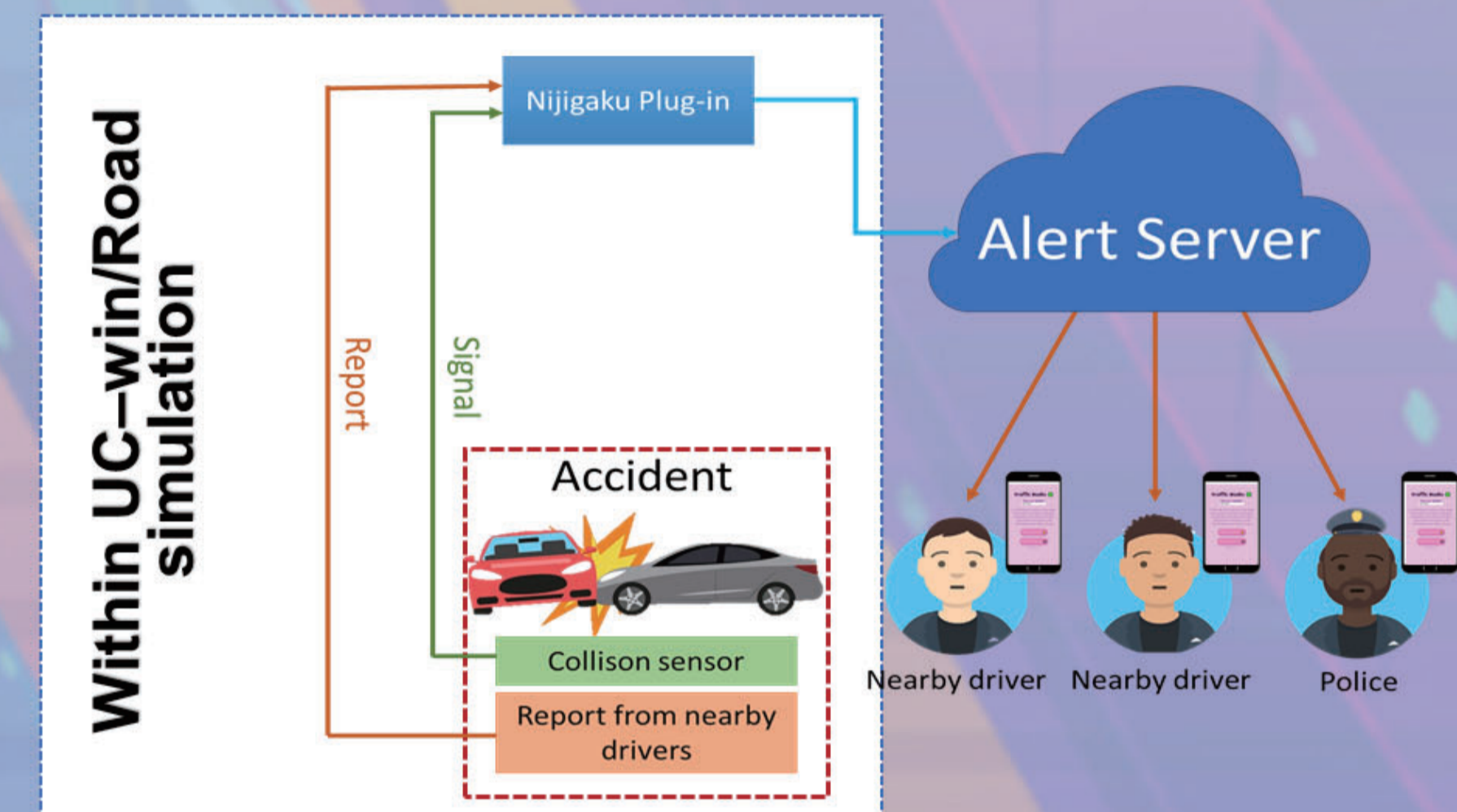
The new Traffic Radio we aim to design:

- **Selective information** based on current position/road/route.
- Stay idle to keep attention for driver, only **alert when needed**.
- Be **interactive**, drivers can contribute information by reporting news.



Workflow

Create a simple scenario with required events for the Nijigaku plugin in UC-winRoad. Open Nijigaku client app on the device and register the car plate number on the server. Play the scenario. Open the plugin and input the car plate number of the vehicle, then start the capture. The user will get notifications of the accident location on Google Maps. Users can also manually submit reports of nearby accidents.



Product Definition

The product include **1 UC-winRoad plugin** and **1 mobile application**.

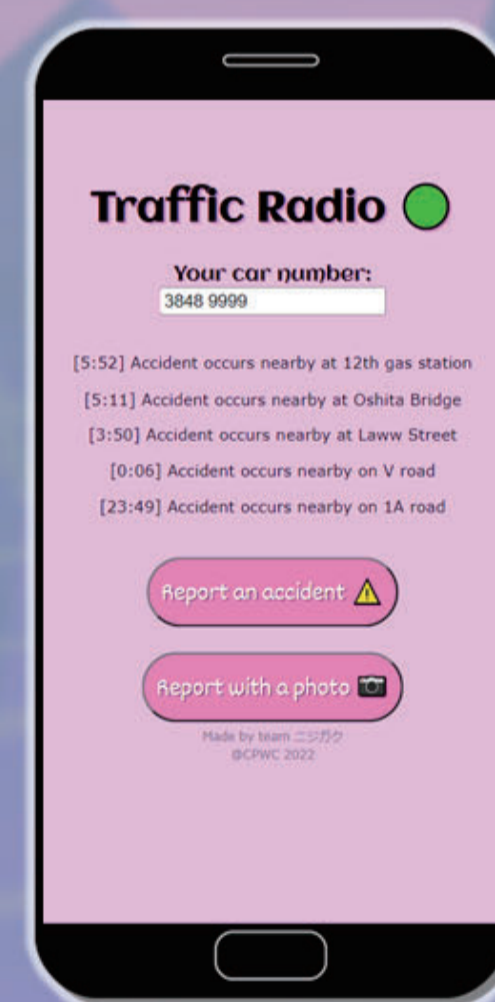
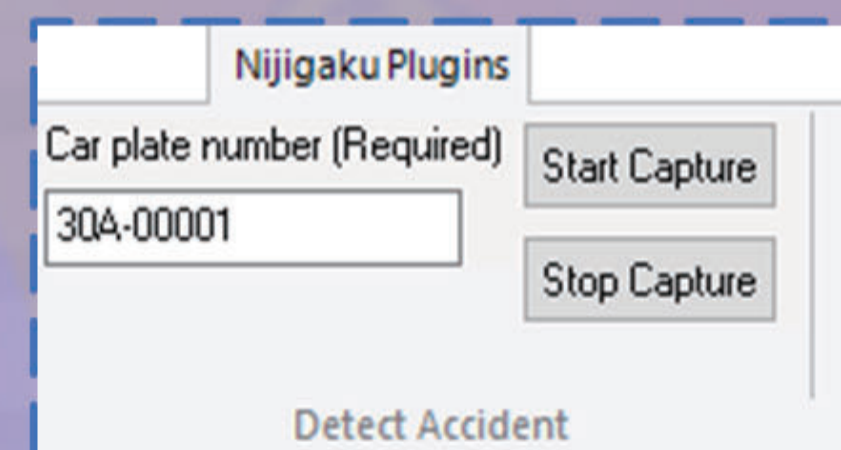
Nijigaku plugin:

Simulate the traffic scenario and the detection system in UC-winRoad

Nijigaku Traffic Radio app:

This app act as a radio to broadcast news and alert when needed.

Interactive: allow users to send reports with or without photos.



Registration

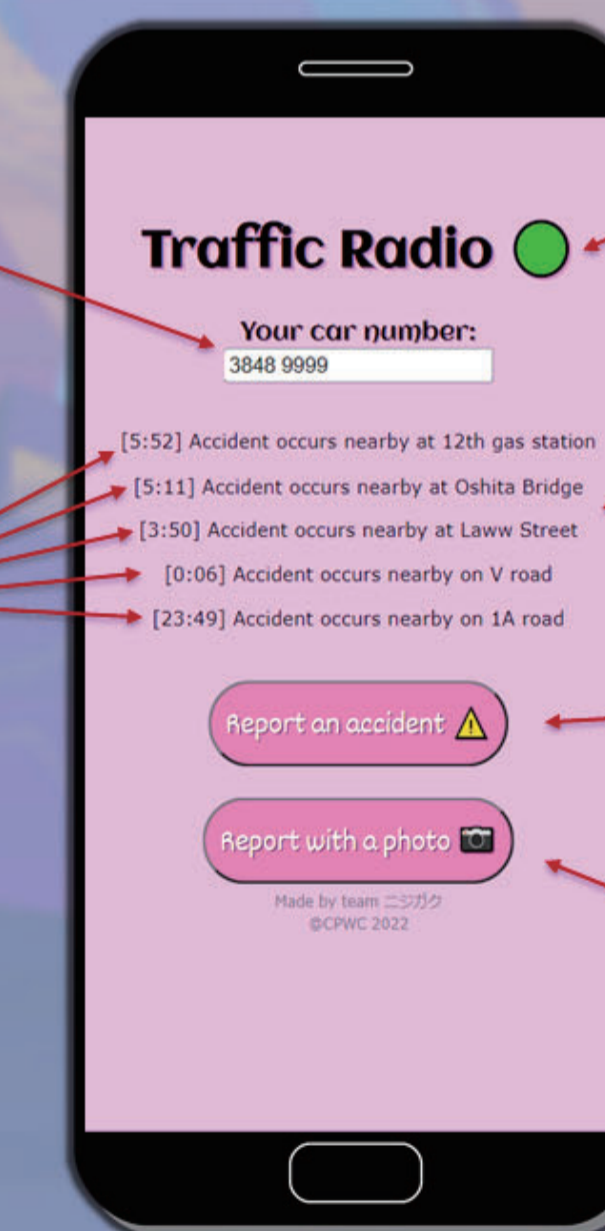
Each car is registered by its car number

News

- Displayed with time, latest news on top
- If you click on the news, it will open Google Maps at the location of the accident



- When the news first arrive, a **voice message** will be spoken so that it functions like a radio



Green light

Indicates the user is online and the app is ready

Dashboard

Showing local traffic news, the dashboard can display 5 latest news at a time

Report button

Click to manually send a report when accident occurs near you

Report with photo (under development)

Click to open camera, take a photo and attach with the report

When a collision happens, the UC-win/Road plugin will send a notification to the server to inform all clients about the accident. The notification will appear as a feed if the web app is running background. If it is running in the foreground, a speech notification about the location of the accident will sound off.

Future Work

1. Continue **developing the missing features**: Report with a photo, spam detection.
2. **Link with web mapping platforms** such as Google Map, Open Street View.
3. **Improve accuracy** of map coordinate.