Self Driving Car Simulation

USING A NEURAL NETWORK IMPLEMENTED IN JAVASCRIPT – WITH IMPLEMENTATION OF ALL LIBRARIES

Agenda


Introduction To Team Members
How project was inspired
Technology & Architecture
Core algorithms and code snippet
Process and timeline
Challenge(s) overcome
Live Demo
Learnings about technical interests as a result of this project
Q , A

ABOUT ME

KHAMED MOHAMED

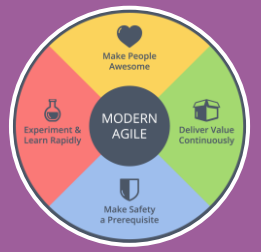
- TECHNICAL SUPPORT
- SYSTEM ADMIN
- NETWORK ENGINEER
- DATA ANALYSIS
- ALX SE
- COMPUTER SCINCE RESEARCH ER

SYSTEM ADMIN

TECHNICAL SUPPORT

NETWORK ENGINE'S

DATA ANALYSIS



ALX
SOFTWARE-ENGINEER
BACKEND

COMPUTER-SCINCE RESEARCH ER AT ALEXANDRIA UNIVERSITY

How project was inspired

- Empowering Africa in AI: Our Open-Source Odyssey
- Breaking Free from Closed Source
- Open Source, Open Minds
- Dreaming of AF-GPT
- Self-Driving Dreams in Africa
- Simplicity in Complexity

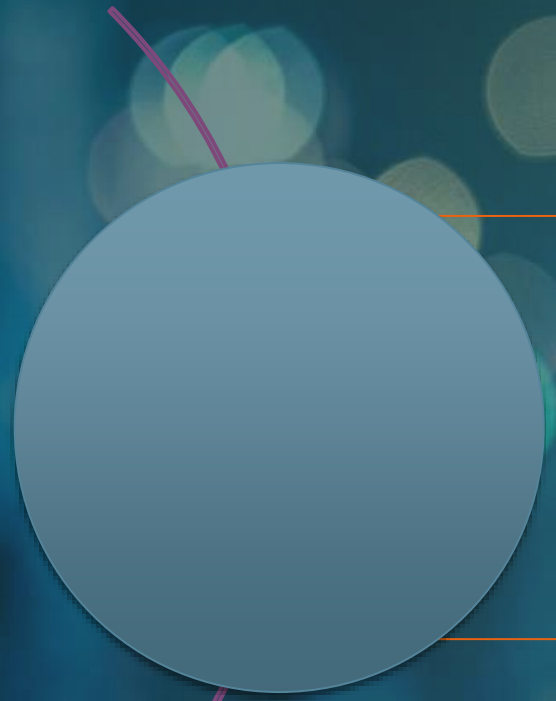
In the heart of Africa, embarked on a journey to redefine the future of Artificial Intelligence. Inspired by the vast possibilities and the belief that innovation knows no bounds, we set out to build our way in the AI landscape, steering clear of closed-source giants.

Empowering Africa in AI: Our Open-Source Odyssey

Our starting point was a realization — a realization that closed-source solutions should not be the only gateway to AI. While GPTs and similar technologies are undoubtedly powerful, we aimed for something different. We envisioned an Africa-specific model, an AF-GPT, cultivated from the diverse narratives, languages, and cultures that make our continent unique.

Breaking Free from Closed Source

Choosing the open-source path wasn't just a technical decision; it was a declaration of empowerment. By contributing to open-source AI libraries, we're not only building tools for today but also laying the groundwork for future African developers. It's about democratizing knowledge, ensuring that the next generation can pick up the torch and run with it, making their mark in the new era of AI.

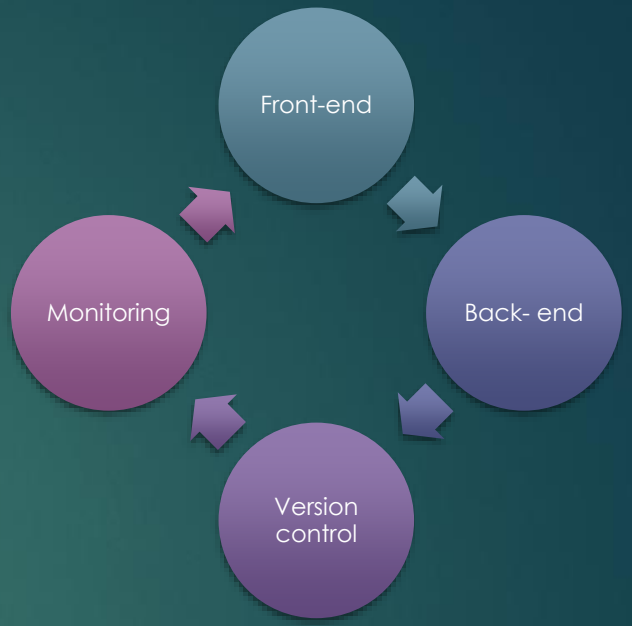


Open Source, Open Minds

Imagine a day when an AF-GPT, trained on the rich tapestry of African languages and stories, becomes a beacon of representation in the AI world. Our journey is a step towards that dream — a dream where AI reflects the diversity of its users, breaking away from one-size-fits-all models.

Dreaming of AF-GPT

Technology & Architecture



FRONT-END :

HTML, CSS.

JAVA –SCRIPT

BACK-END :

A LOT OF

JAVA-SCRIPT,

NO REALLY A HUGE AMOUNT OF JS CODE !!

VERSION CONTROL :

GIT, GITHUB

MONITORING :

CONSOLE-OUTPUT, VISUALIZATION LIBRARY

Code Snippet

Class Sensors

- Take the Car as object, with it's parameters

Contractor

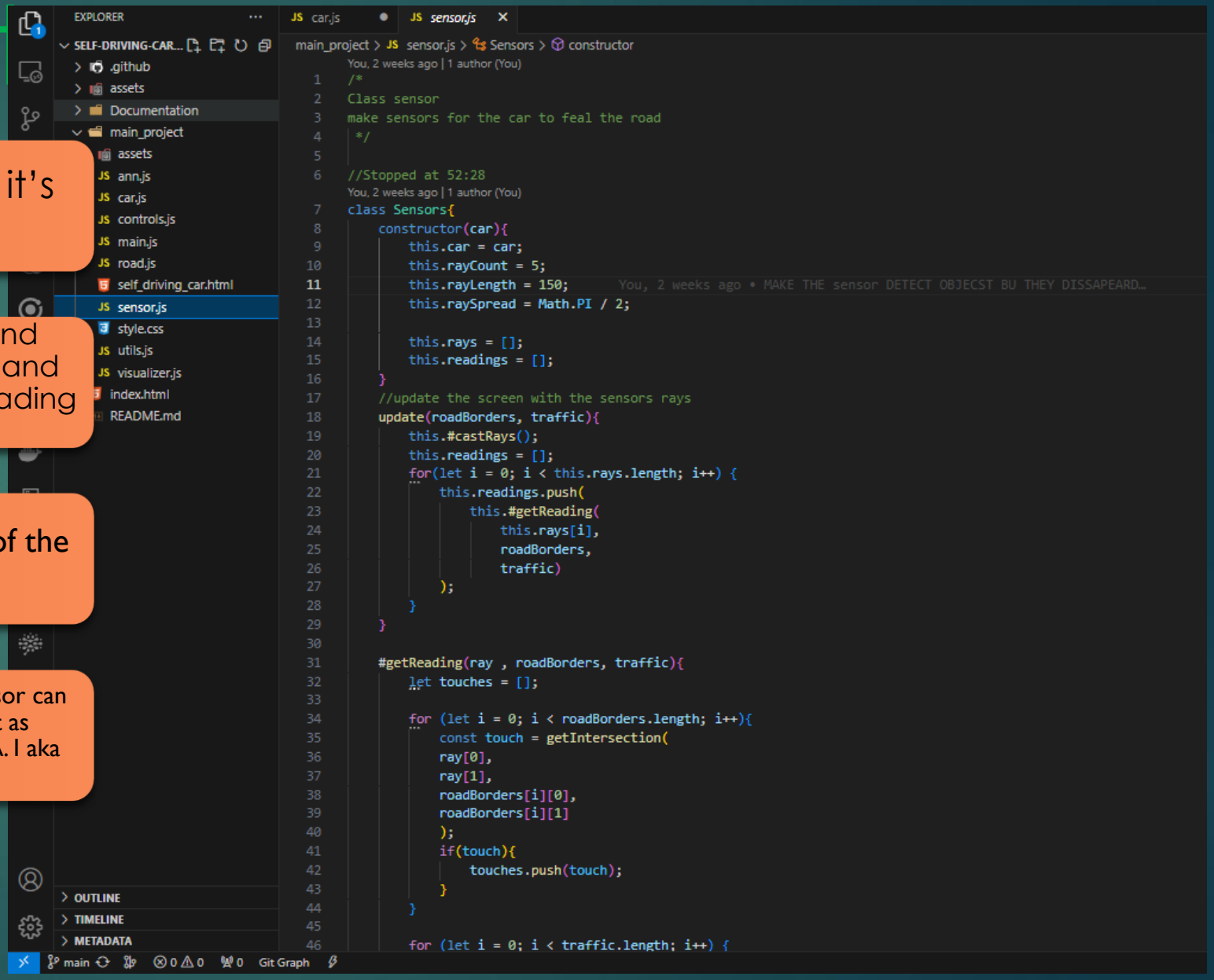
- Initiate the Sensors With Car object, and sensors counts coming out of the car and sensors length and how sensor is spreading from each other

Function UPDATE

- Update the screen with the detection of the sensor

Function GetUpdate

- Private function only accessible inside the Class sensor can take the reading of the sensor touch with any object as possible collusion and return these readings to car A. I aka Car-Brain.



Class Sensors

Take the Car as object, with it's parameters

Contractor

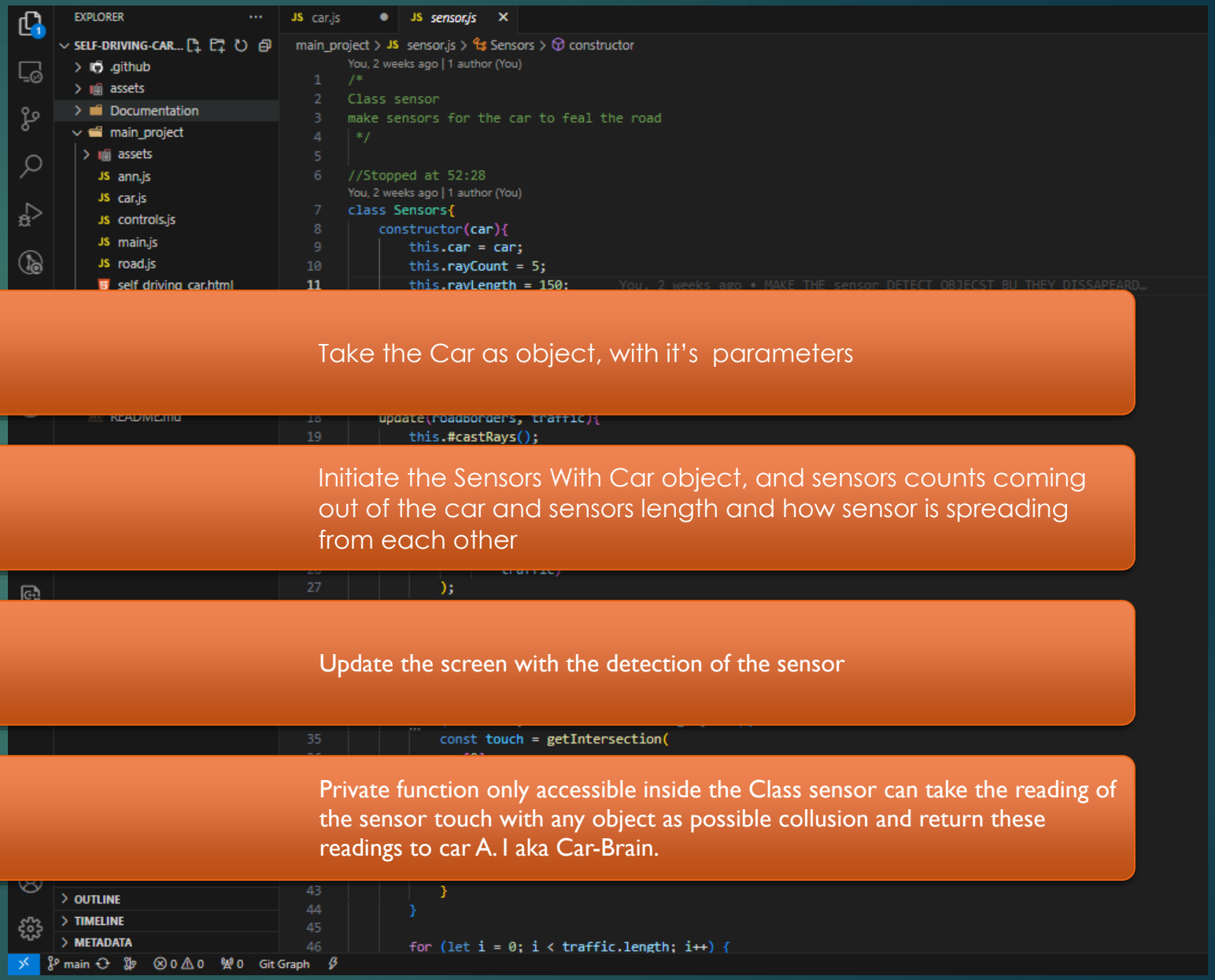
Initiate the Sensors With Car object, and sensors counts coming out of the car and sensors length and how sensor is spreading from each other

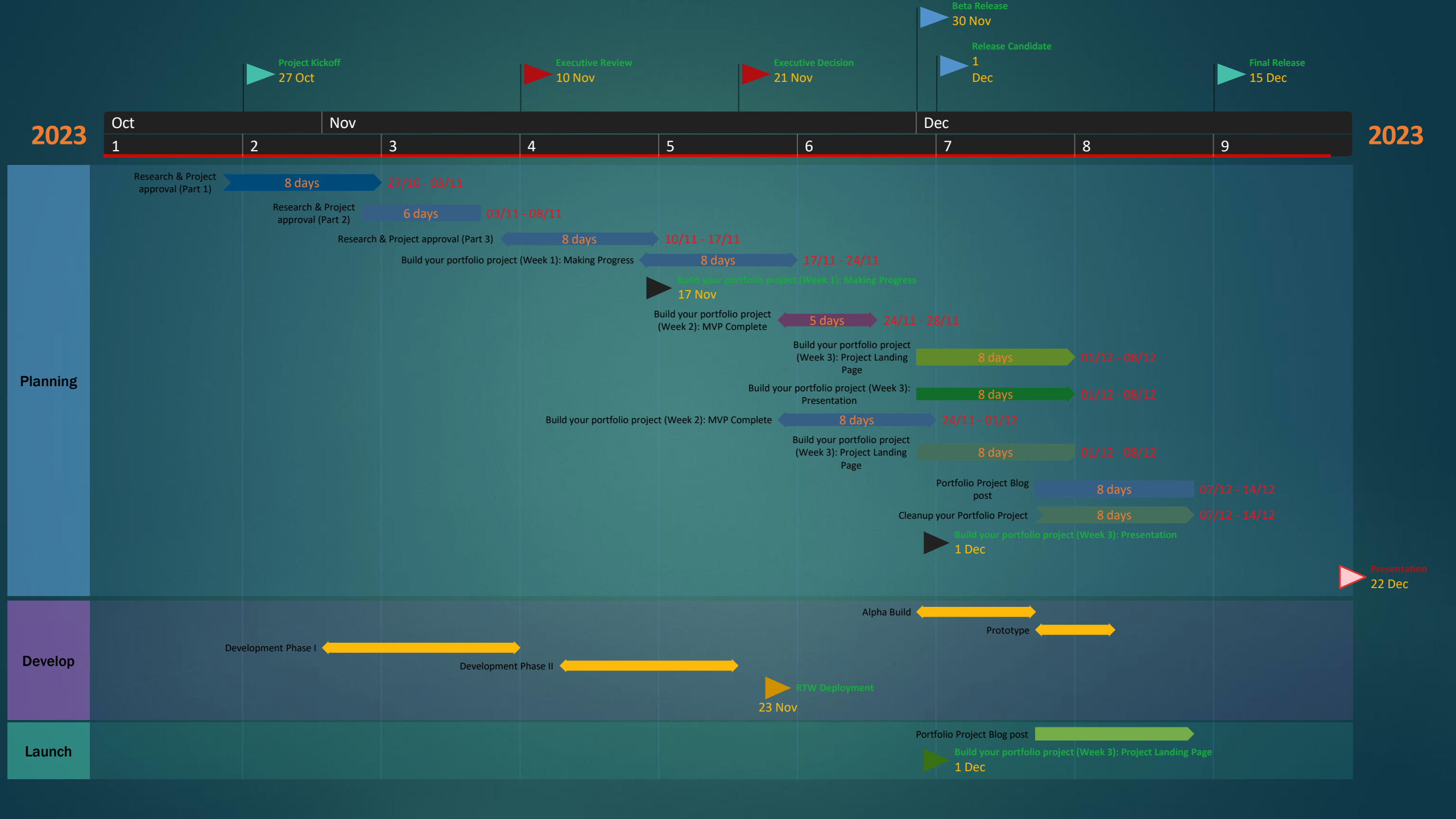
Function UPDATE

Update the screen with the detection of the sensor

Function GetUpdate

Private function only accessible inside the Class sensor can take the reading of the sensor touch with any object as possible collusion and return these readings to car A. I aka Car-Brain.




Beta Release
30 Nov
Release Candidate
1
Dec
Project Kickoff
27 Oct
Executive Review
10 Nov
Executive Decision
21 Nov
Final Release
15 Dec
2023
Oct
Nov
Dec
1
2
3
4
5
6
7
8
9
2023
Planning
Research & Project approval (Part 1)
8 days
27/10 - 03/11
Research & Project approval (Part 2)
6 days
03/11 - 08/11
Research & Project approval (Part 3)
8 days
10/11 - 17/11
Build your portfolio project (Week 1): Making Progress
8 days
17/11 - 24/11
Build your portfolio project (Week 1): Making Progress
17 Nov
Build your portfolio project (Week 2): MVP Complete
5 days
24/11 - 28/11
Build your portfolio project (Week 3): Project Landing Page
8 days
01/12 - 08/12
Build your portfolio project (Week 3): Presentation
8 days
01/12 - 08/12
Build your portfolio project (Week 2): MVP Complete
8 days
24/11 - 01/12
Build your portfolio project (Week 3): Project Landing Page
8 days
01/12 - 08/12
Portfolio Project Blog post
8 days
07/12 - 14/12
Cleanup your Portfolio Project
8 days
07/12 - 14/12
Build your portfolio project (Week 3): Presentation
1 Dec
Presentation
22 Dec
Develop
Alpha Build
Prototype
Development Phase I
Development Phase II
RTW Deployment
23 Nov
Launch
Portfolio Project Blog post
Build your portfolio project (Week 3): Project Landing Page
1 Dec

Thank You

Q , A