**Report Of**

**UMLs Diagrams For**

**Collision Avoidance System**

**Submitted By**

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1. **Use Case:**

The system shall be a part of a car system designed to avoid collisions with objects in its path, adhering to the following specifications:

- If the distance between the car and the object is less than a specific threshold (50), it will come to a stop until the object is removed from its path.

- If the distance exceeds the specified threshold (50), the car will continue driving.

- The system will continuously track the measured values of distances.

1. **Requirements Diagram**

A screenshot of a computer

Description automatically generated

1. **Use Case Diagram**

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1. **Activity Diagram**

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1. **Sequence Diagram**

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1. **System Design Diagram (Block Diagram)**

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1. **State Machine For US Sensor**

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1. **State Machine For CA**

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1. **State Machine For DC Motor**

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1. **Running in TTool**

A computer screen shot of a diagram

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1. **Running in CMD**

A black rectangular object with white dots

Description automatically generated