Sensor

- + initDriver(int,int,int): void
- + getSensorData(): int [1..*]
- + generateSensorData(): void
- + parseSensorData(int [1..*]): void
- + setSensorType(): void
- + getSensorType(): string
- + setNumberOfSensors(int): void
- + setSensorDeviceID(): void
- + getSensorDeviceID(): void
- + getTimeStamp(): void

UltrasonicSensor

- sensorData : int [1..*]
- deviceID: int [1..*]
- sensorType : string
- timeStamp: string
- sensorGain : int
- sensorMaximunRange : int
- numberOfSensors : int
- ultrasonicSensorFront : int
- ultrasonicSensorBack : int - ultrasonicSensorLeft : int
- ultrasonicSensorRight : int
- + UltrasonicSensor()
- + setMaximumRange(int): void
- + setGain(int): void
- + initDriver(int,int,int): void
- + getSensorData(): int [1..*]
- + generateSensorData(): void
- + parseSensorData(int [1..*]): void
- + setSensorType(): void
- + getSensorType(): string
- + setNumberOfSensors(int): void + setSensorDeviceID(int): void
- + getSensorDeviceID(): void
- + getTimeStamp(): void

SensorFusion

- fusedSensorFwd : int
- fusedSensorBack : int
- fusedSensorLeft : int
- fusedSensorRight : int
- + SensorFusion()
- + fuseSensorsData(int [1..*],int [1..*]) :void
- + getFusedSensorFwd(): int
- + getFusedSensorBack(): int
- + getFusedSensorLeft(): int
- + getFusedSensorRight(): int
- + outputFusedSensorData(): void

ObstacleAvoidanceModule

- frontObstacle : bool = false
- backObstacle : bool = false
- leftObstacle : bool = false
- rightObstacle : bool = false
- + ObstacleAvoidance()
- + detectObstacle(int,int,int,int): void
- + trnOnOffAvoid(&int,&int,&int,&int) : void

MotorController

- fwdSpeed : int = 0
- backSpeed : int = 0
- leftSpeed : int = 0- rightSpeed : int = 0
- + MotorController()
- + initializeMotorController(): void
- + moveForward(int): void
- + moveBackwards(int): void
- + moveLeft(int) : void
- + moveRight(int): void

LaserSensor

- sensorData : int [1..*]
- deviceID : int [1..*]
- sensorType : string
- sensorGain : int
- sensorMaximunRange : int
- timeStamp: string
- numberOfSensors : int
- laserSensorFront : int
- laserSensorBack : int
- laserSensorLeft : int
- laserSensorRight : int
- + LaserSensor()
- + initDriver(int): void
- + getSensorData(): int [1..*]
- + generateSensorData(): void
- + parseSensorData(int [1..*]): void
- + setSensorType(): void
- + getSensorType(): string
- + setNumberOfSensors(int): void
- + setSensorDeviceID(int): void
- + getSensorDeviceID(): void
- + getTimeStamp(): void