Module Interface Specification: CarObject.js

Members

CAR_FITNESS

This variable keeps track of the car's fitness

Source:	CarObject.js, line 11

CAR_HEALTH

This variable keeps track of the car's health

Source:	CarObject.js, line 6

MAX_WHEEL_RADIUS

This variable keeps track of the maximum radius a wheel can have

Source:	CarObject.js, line 26

MIN_WHEEL_RADIUS

This variable keeps track of the minimum radius a wheel can have

Source:	CarObject.js, line 21

NUMBER_OF_VECTORS

This variable keeps track of the number of vectors that a car has

Source:	CarObject.js, line 16

NUMBER_OF_WHEELS

This variable keeps track of the number of wheels a car can have

Source:	CarObject.js, line 31

VECT_X_LOC

This variable keeps track of the starting location of the X-vector on the car's chromosome.

Source:	CarObject.js, line 37

VECT_Y_LOC

This variable keeps track of the starting location of the Y-vector on the car's chromosome.

Source:	CarObject.js, line 43

Contents

WHEEL_POS_LOC

This variable keeps track of the starting location of the wheel position array on the car's chromosome.

Source:	CarObject.js, line 49

WHEEL_RADIUS_LOC

This variable keeps track of the starting location of the wheel radi on the car's chromosome.

Source:	CarObject.js, line 55

Methods

generateNewCar()

Method that generates new car randomly.

Source:	CarObject.js, line 74

getCarDef() → {BodyDef}

Method that retrieves the definition of a car.

Source:	CarObject.js, line 262

Returns:

The car's body definition

Type
      BodyDef

getChromosome() → {Array.<Integer>}

Method that retrieves the specific chromosome of a car.

Source:	CarObject.js, line 246

Returns:

The car's chromosome

Type
      Array.<Integer>

getFitness() → {Integer}

Method that retrieves the fitness of a car.

Source:	CarObject.js, line 270

Returns:

The car's fitness

Type
    Integer

getHealth() → {Integer}

Method that retrieves the health of a car.

Source: CarObject.js, line 254

Returns:

The health of the car

Type
    Integer

getVertexXArray() → {Array.<Integer>}

Method that retrieves the array of horizontal vertices of a car.

Source: CarObject.js, line 214

Returns:

The x-vertex array

Type
    Array.<Integer>

getVertexYArray() → {Array.<Integer>}

Method that retrieves the array of vertical vertices of a car.

Source: CarObject.js, line 222

Returns:

The y-vertex array

Type
    Array.<Integer>

getWheelPosArray() → {Array.<Integer>}

Method that retrieves the array of wheel positions of a car.

Source: CarObject.js, line 230

Returns:

The wheel position array

Type
    Array.<Integer>

getWheelRadiusArray() → {Array.<Integer>}

Method that retrieves the array of wheel radiuses of a car.

| | Source: | CarObject.js, line 238 |

Returns:

The wheel radius array

Type
    Array.<Integer>

increaseFitness()

Method that increases the fitness value of a car by 1.

| | Source: | CarObject.js, line 104 |

removeHealth()

Method that reduces the health value of a car by 1.

| | Source: | CarObject.js, line 111 |

setCarDef(carDef)

Method that sets the definition of a car.

Parameters:

Name	Type	Description
carDef	Float	The set value of the ar's definition.

| | Source: | CarObject.js, line 179 |

setChromosome(chromosome)

Method that sets the chromosome of a car

Parameters:

Name	Type	Description
chromosome	Array.<Chromosome>	The chromosome to be altered.

| | Source: | CarObject.js, line 187 |

setFitness(fitness)

Method that sets the fitness of a car

Parameters:

Name	Type	Description
fitness	Integer	The fitness to be altered.

| | Source: | CarObject.js, line 206 |

setHealth(health)

Method that sets the health of a car

Parameters:

Name	Type	Description
health	Integer	The health to be altered.

> Source: CarObject.js, line 198

setVertexX(vertexXArray, i)

Method that sets a specific vertex in an array of the horizontal vertices to a specific value.

Parameters:

Name	Type	Description
vertexXArray	Array.<vertexXArray>	The array of vertices where the vertex is present.
i	Integer	The identify of the specific vertex in the array that is to be altered.

> Source: CarObject.js, line 128

setVertexXArray(vertexXArray)

Method that sets the array of vertices in the horizontal.

Parameters:

Name	Type	Description
vertexXArray	Array.<vertexXArray>	The array of vertices to be set.

> Source: CarObject.js, line 119

setVertexY(vertexYArray, i)

Method that sets a specific vertex in an array of the vertical vertices to a specific value.

Parameters:

Name	Type	Description
vertexYArray	Array.<vertexXArray>	The array of vertices where the vertex is present.
i	Integer	The identify of the specific vertex in the array that is to be altered.

> Source: CarObject.js, line 145

setVertexYArray(vertexYArray)

Method that sets the array of vertices in the vertical.

Parameters:

Name	Type	Description
vertexYArray	Array.<vertexXArray>	The array of vertices to be set.

> Source: CarObject.js, line 136

setWheelPos(wheelPos, i)

Method that sets the position of a specific wheel to a specific location.

Parameters:

Name	Type	Description
wheelPos	Array.<wheelPosArray>	The array that conatins the locations of the wheels.
i	Integer	The identify of the specific wheel position to be set in the array.

Source:	CarObject.js, line 154

setWheelRadius(wheelRadius, i)

Method that sets the radius of a specific wheel.

Parameters:

Name	Type	Description
wheelRadius	Array.<wheelRadius>	The array that conatins the radiuses of the wheels.
i	Integer	The identify of the specific wheel radius to be set in the array.

Source:	CarObject.js, line 163

setWheelRadiusArray(wheelRadiusArray)

Method that sets array of wheel radiuses to a specific array.

Parameters:

Name	Type	Description
wheelRadiusArray	Array.<wheelRadius>	The array that conatins the locations of the wheels.

Source:	CarObject.js, line 171