Module Interface Specification: MakeCar.js

Contents

Members

JOINT_MAX_TORQUE

This variable keeps track of the maximum torque that a joint can support.

Source: MakeCar.js, line 56

JOINT_SPEED

This variable keeps track of the maximum speed that a joint can support.

Source: MakeCar.js, line 61

NUMBER_OF_VERTICES

This variable keeps track of the number of verticies needed to define a polygon.

Source: MakeCar.js, line 11

POLYGON_DENSITY

This variable keeps track of the density of a polygon.

Source: MakeCar.js, line 16

POLYGON_FILTER_GROUP_INDEX

This variable keeps track of the filter group applied to the polygon.

Source: MakeCar.js, line 26

POLYGON_FRICTION

This variable keeps track of the friction of a polygon.

Source: MakeCar.js, line 21

POLYGON_RESTITUTION

This variable keeps track of the restitution of the polygon.

Source: MakeCar.js, line 31

WHEEL_DENSITY

This variable keeps track of the density of a wheel.

Source: MakeCar.js, line 36

WHEEL_FILTER_GROUP_INDEX

This variable keeps track of the filter group applied to a wheel.

Source: MakeCar.js, line 46

WHEEL_FRICTION

This variable keeps track of the friction of a wheel.

Source: MakeCar.js, line 41

WHEEL_RESTITUTION

This variable keeps track of the restitution of a wheel.

Source: MakeCar.js, line 51

WORLD_SCALE

This variable keeps track of the scale of the world for the objects in the simulation.

Source: MakeCar.js, line 6

X_SCALE

This variable keeps track of the scaling factor in the x-direction.

Source: MakeCar.js, line 66

Y_SCALE

This variable keeps track of the scaling factor in the y-direction.

Source: MakeCar.js, line 71

Methods

drawCar(world, WORLD_SCALE, vertex1X, vertex1Y, vertex2X, vertex2Y, vertex3X, vertex3Y, vertex4X, vertex4Y, vertex5X, vertex5Y, vertex6X, vertex6Y, vertex7X, vertex7Y, vertex8X, vertex8Y, frontwheelPos, rearWheelPos) → {b2BodyDef}

This method creates a car to the screen.

Parameters:

Name	Type	Description
world	b2World	The Box2D world where the car will be placed in
WORLD_SCALE	Integer	The scaling factor for the Box2D world
vertex1X	Integer	The x-coordinate of the first vertex
vertex1Y	Integer	The y-coordinate of the first vertex

Name	Type	Description
vertex2X	Integer	The x-coordinate of the second vertex
vertex2Y	Integer	The y-coordinate of the second vertex
vertex3X	Integer	The x-coordinate of the third vertex
vertex3Y	Integer	The y-coordinate of the third vertex
vertex4X	Integer	The x-coordinate of the fourth vertex
vertex4Y	Integer	The y-coordinate of the fourth vertex
vertex5X	Integer	The x-coordinate of the fifth vertex
vertex5Y	Integer	The y-coordinate of the fifth vertex
vertex6X	Integer	The x-coordinate of the sixth vertex
vertex6Y	Integer	The y-coordinate of the sixth vertex
vertex7X	Integer	The x-coordinate of the seventh vertex
vertex7Y	Integer	The y-coordinate of the seventh vertex
vertex8X	Integer	The x-coordinate of the eighth vertex
vertex8Y	Integer	The y-coordinate of the eighth vertex
frontwheelPos	Integer	The vertex that the front wheel is attached to
rearWheelPos	Integer	The vertex that the back wheel is attached to

Source: MakeCar.js, line 309

Returns:

The completed car

Type
b2BodyDef

makeCarJoints(world, bodyA, bodyB, wheelPosX, wheelPosY) → {b2RevoluteJointDef}

This method creates joints used to connect the wheels to the car chassis.

Parameters:

Name	Type	Description
world	b2World	The Box2D world where the joint will be placed in
bodyA	b2BodyDef	The first object to connect the joint to
bodyB	b2BodyDef	The second object to connect the joint to
wheelPosX	Integer	The x-coordinate of the wheel
wheelPosY	Integer	The y-coordinate of the wheel

Source: MakeCar.js, line 256

Returns:

The joint connecting bodyA to bodyB

Type
b2RevoluteJointDef

makePolygon(num, vertex1X, vertex1Y, vertex2X, vertex2Y)

This method creates a polygon given the x and y coordinate of 2 vertices, and it joins them at the origin.

Parameters:

Name	Type	Description
num	Integer	The ID of the polygon
vertex1X	Integer	The x-coordinate of the first vector
vertex1Y	Integer	The y-coordinate of the first vector
vertex2X	Integer	The x-coordinate of the second vector
vertex2Y	Integer	The y-coordinate of the second vector

Source: MakeCar.js, line 83

makeWheelFixture(world, car, wheelbodyDef, wheelFixture) → {Body}

This method connects the wheel to the car chassis.

Parameters:

Name	Type	Description
world	b2World	The Box2D world where the wheel will be placed in
car	b2BodyDef	The car to connect the wheels to
wheelbodyDef	b2BodyDef	The body (physics) definition of the wheel
wheelFixture	b2FixtureDef	The shape definition of the wheel

Source: MakeCar.js, line 277

Returns:

The wheel

Type
Body

makeWheelShape(world, WORLD_SCALE, radius) → {b2FixtureDef}

This method creates the shape of a wheel for the car given its radius.

Parameters:

Name	Type	Description
world	b2World	The Box2D world where the wheel will be placed in
WORLD_SCALE	Integer	The scaling factor
radius	Float	The radius of the wheel

Source: MakeCar.js, line 235

Returns:

The shape of the wheel created

Type
b2FixtureDef