

## 2D Vehicle Physics documentation

### 1. Description

This package contains a few scripts for making a vehicle controller based on Physics2D. With this you can quick start making your own 2D racing game. Just add your sprites and spend a few minutes for setting the necessary parameters of your 2D vehicle.

Features:

- Easy to setup
- Realistic physics
- Mobile compatibility

Used components:

- Configured *Spring Joint 2D*, *Slider Joint 2D*, *Hinge Joint 2D*
- Forces affecting on *Rigidbody 2D* without directly changing velocity
- Any 2D collider type for vehicle body and *Circle Collider 2D* for wheels

### 2. Quick start

- a) Take a look in **Prefabs** folder. Drag and drop **SportCar** prefab on your scene and check object hierarchy



- b) Replace vehicle body and wheels sprites on your own using Sprite Renderer component on **SportCar**, **BackWheel** and **FrontWheel** objects
- c) Change the radius of Circle Collider for **BackWheel** and **FrontWheel** objects based on size of your wheel sprites. Also, change the edges positions of Polygon Collider for **SportCar** object in the same way
- d) Set the default wheel positions for your vehicle by dragging **BackWheelPivot** and **FrontWheelPivot** objects
- e) Finally, set your own parameters for the vehicle in *Car Controller 2D* component. Find more description about vehicle parameters in *CarController2D.cs* scripts

Also, take a look at **CustomWheelPivot** prefab in **Prefabs** folder. You can attach this wheel to any other object with *Rigidbody2D* attached.