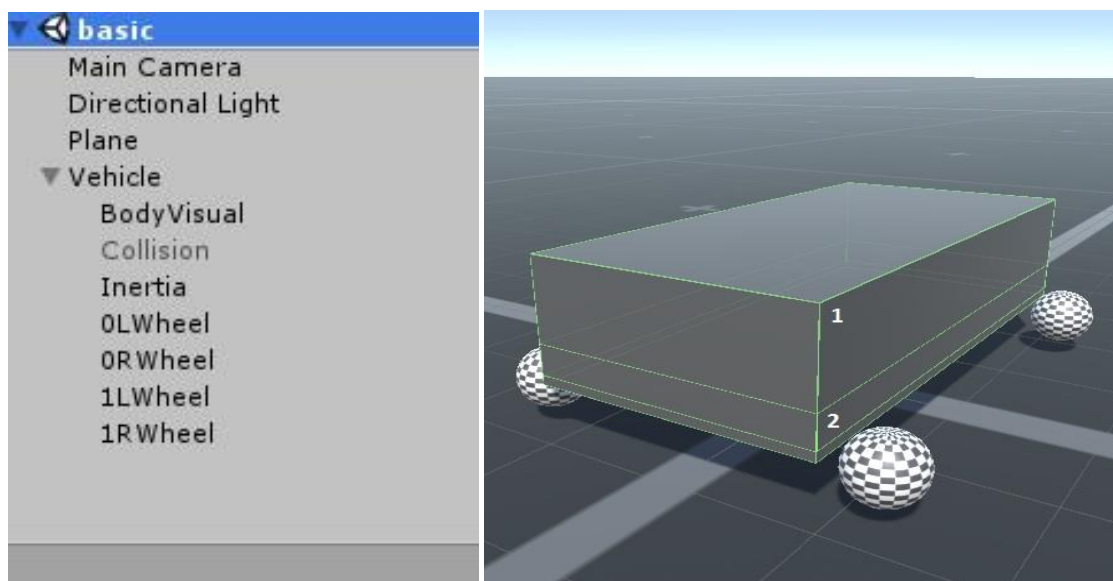


F-GEAR

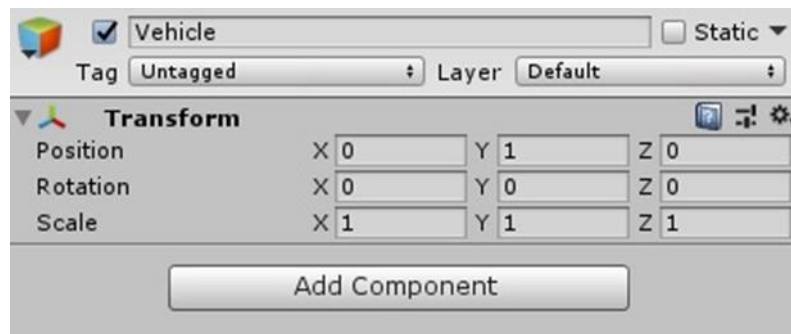


Quickstart

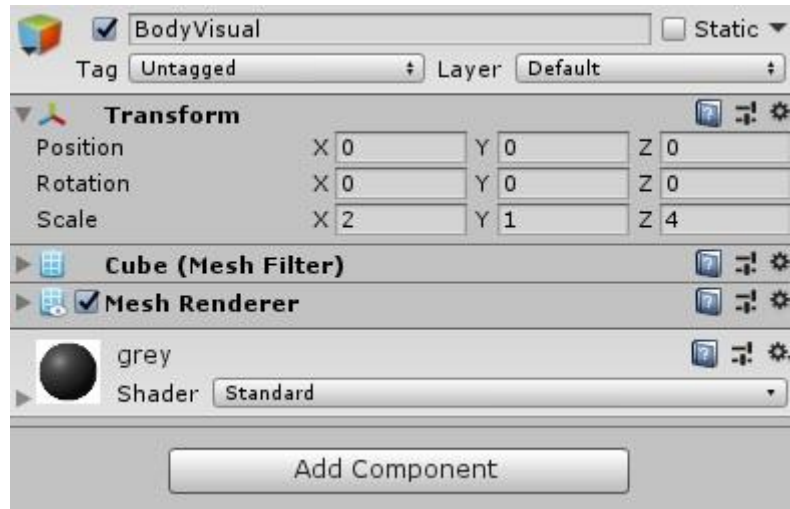
- 1- Open a new scene, add a plane and scale it to 100x to use as ground, any extra content is optional.
- 2- Setup a layout like in the image below:



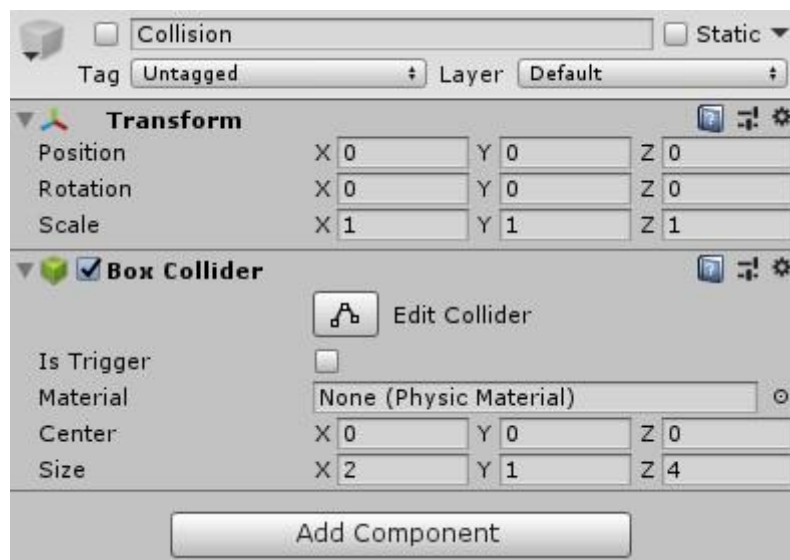
Vehicle : Parent gameobject that will host the vehicle script. Place at position 0,1,0 and keep the scale to 1,1,1.



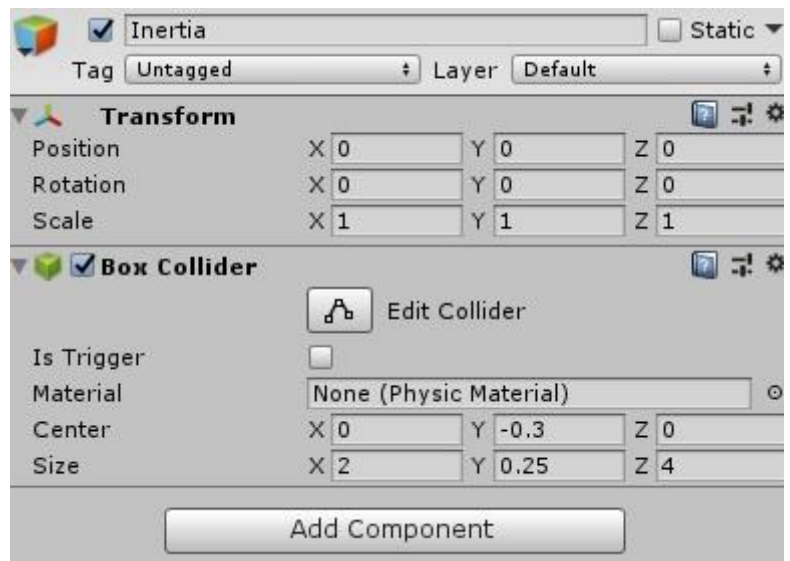
BodyVisual : Model of the car like the grey box in the image. A simple box that is scaled to 2,1,4 units. Name of this object is not important. Remove any colliders from this one.



Collision : Like its name(**do not change the name**) this only contains the collider of the vehicle body, it is a box collider in this case(label 1 in the image above). Keep the gameobject **disabled**, when the game starts this will be enabled and *Inertia* gameobject will be disabled. If you fail to do this inertia calculation will be based on this one which is usually not good.

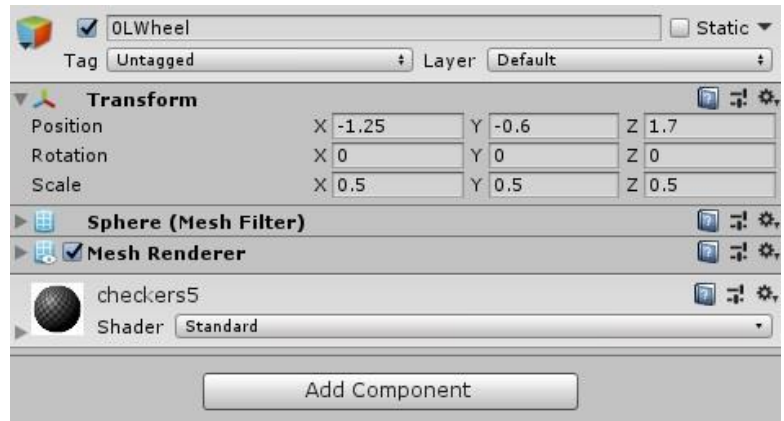


Inertia : This gameobject(**do not change its name**) is also a box collider but used only for calculating vehicles center of mass and inertia values. Add the same collider as Collision object but keep its height lower and keep it closer to the ground(like label 2 in the image above). This will be disabled when the game starts.



0L/0R/1L/1R Wheel : Visual representations of the wheels. These also represent the point that the wheels are attached to the vehicle body. In game they will be transformed when the state of wheels change like steering, suspension or rolling. **This exact naming is important for this tutorial**, when not manually provided, required input transforms are found by using these names. Use the following positions for this tutorial :

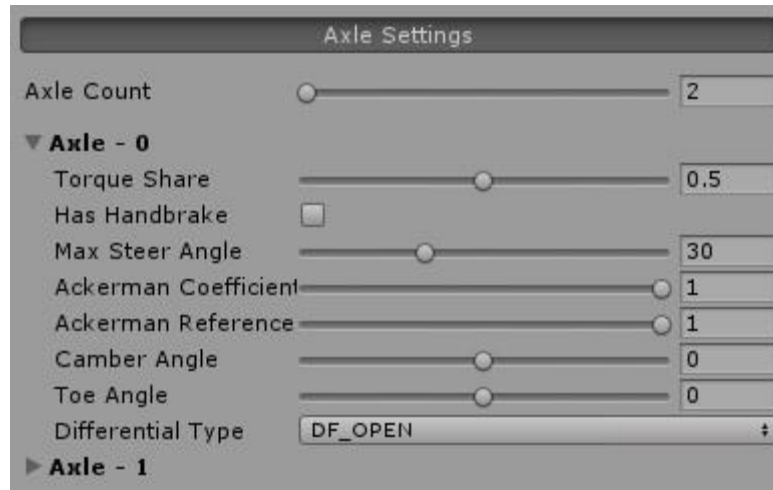
Position 0L	-1.25	-0.6	1.7
Position 0R	1.25	-0.6	1.7
Position 1L	-1.25	-0.6	-1.7
Position 1R	1.25	-0.6	-1.7



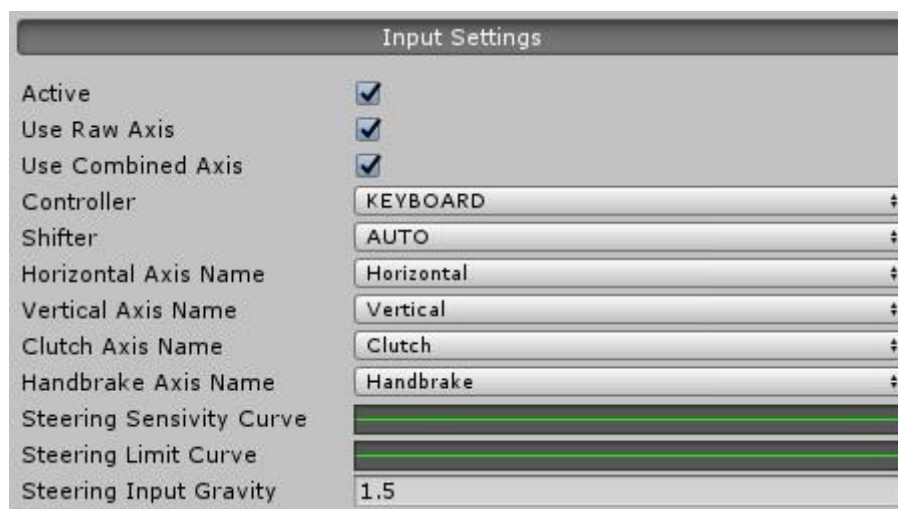
- 3- Add a “Vehicle” component to the Vehicle gameobject. This will also add a rigidbody component, no need to modify its properties.



- 4- At this point place your camera to a position that you can see the vehicle from a nice view(or attach the OrbitCamera component to the camera and set target transform as Vehicle) and you should be able to press play and drive the car forward and backwards. You can not steer yet because you need to set which axle(s) has steering capability. So in Axle settings open *Axle – 0* options and set the “Max Steer Angle” value to 30. Now you can freely drive around.



Warning : You may get “Input Axis is not setup” errors if you have modified the default values of the unity input axis list. If that happens set the correct axis in the input settings section like below:



The axis settings that were used in development is available here :

<https://www.dropbox.com/s/h69d08r1lbf460i/InputManager.asset?dl=0> Download the file and overwrite yours(in ProjectSettings folder) if you want to get a head start instead of preparing axis configurations.