BONECRACKER GAMES

Physics Based Realistic Tank Controller

With this package, you can build your high customizable battle tanks for your project just in few minutes.

No any single hinge joint used on tank track, therefore system is running at best performance, without weird physics glitches and bugs. Based on mesh blending.

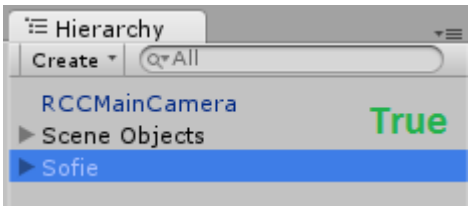
You can find unreleased new updates, tutorial videos, and new documentations on;

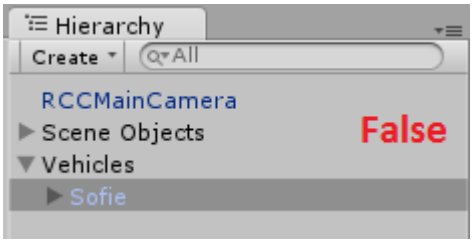
http://bugra381.wix.com/bonecrackergames#!physics-based-tank-controller-documentat/cs28

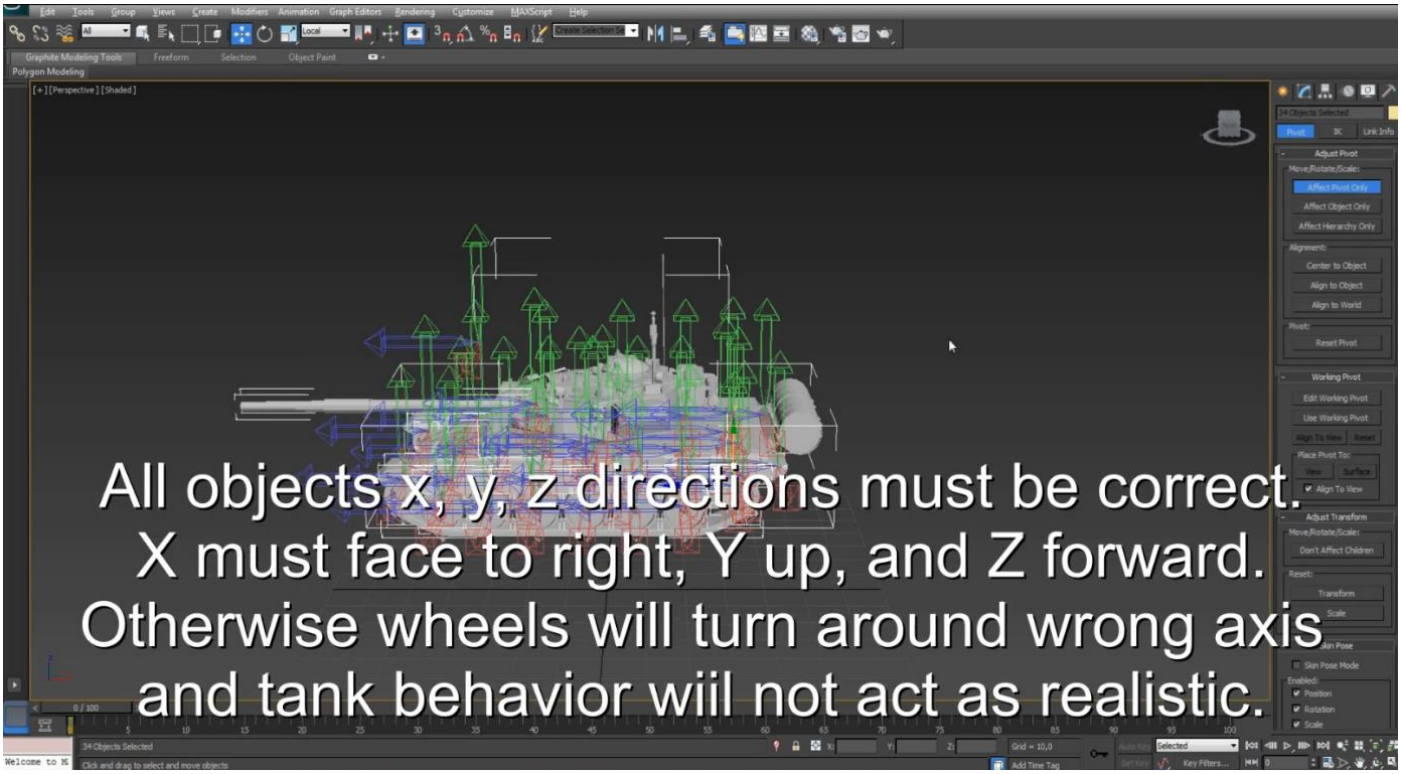
First to Do!

Some users couldnt create just 2 new layers, or just they didn't read this documentation. So, you don't need to create layers no longer. I could include current Project Settings to the package. But this would overwrite your current Project Settings, and you will loose everything about your current settings. That's why I didn't include it. That's why you have to create 2 new layers. But as I said, you don't need to create them.

Just don't parent your tanks to another gameobject. Your tank must be at root of your hierarchy;

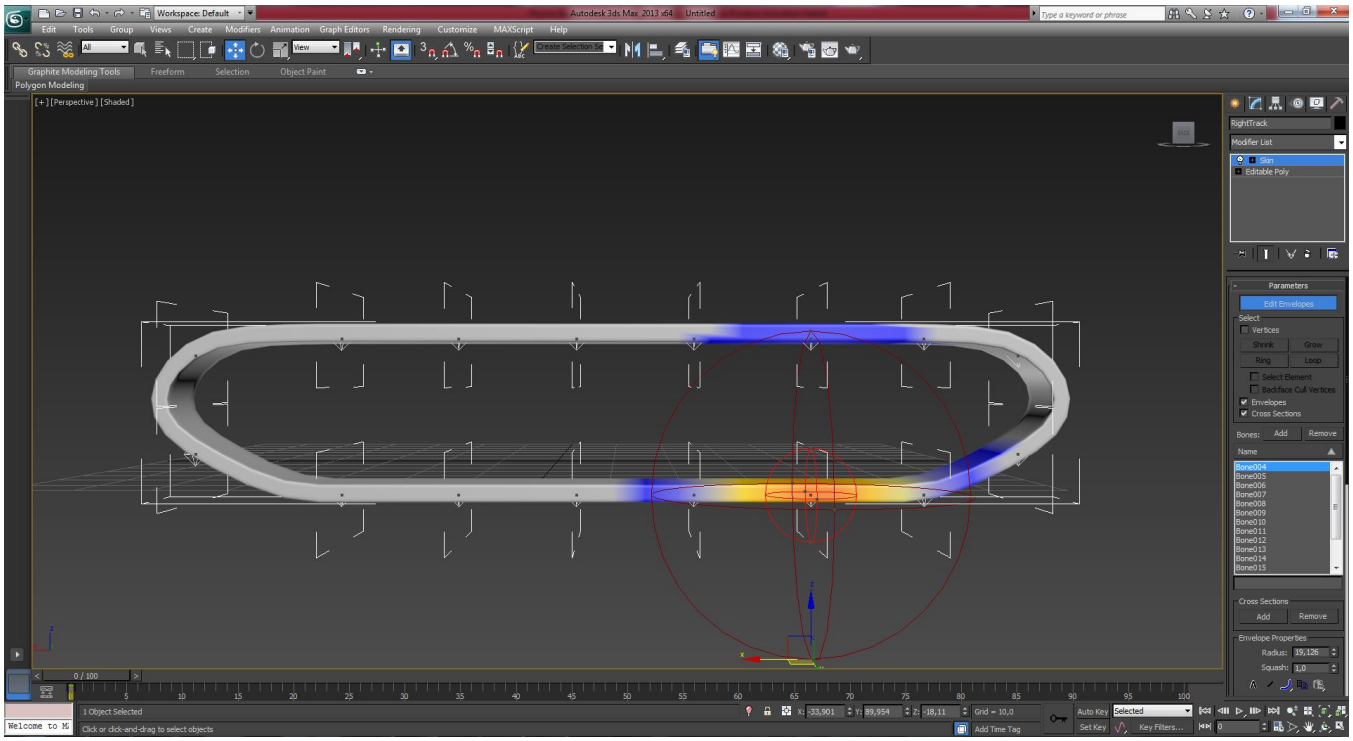


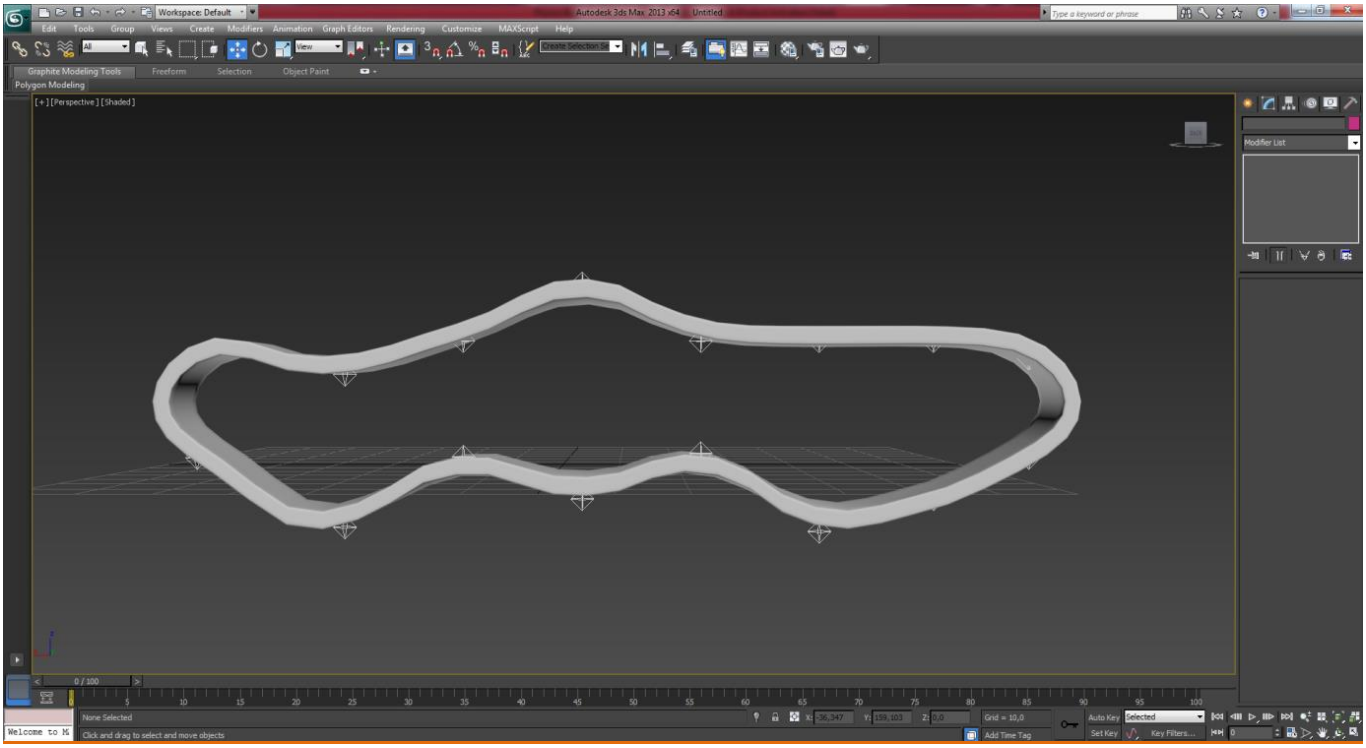




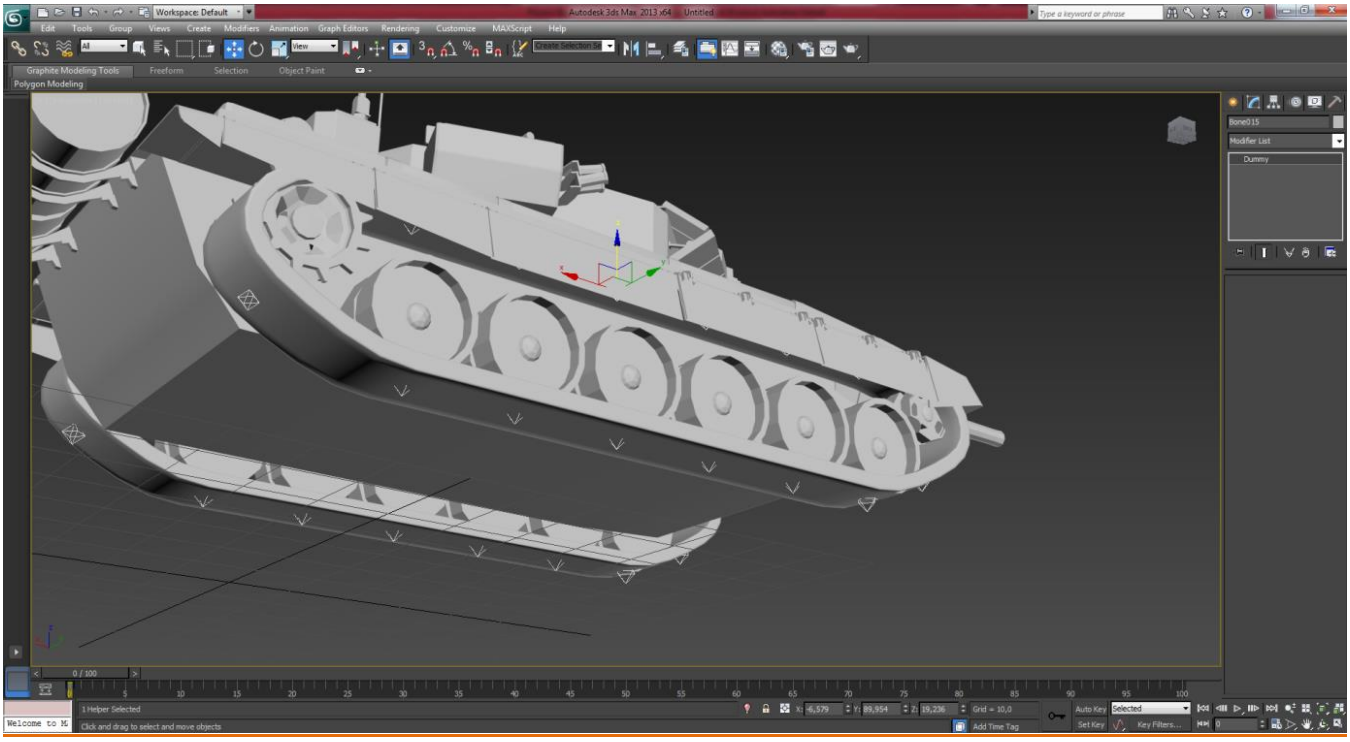
About the Tank Track

Track is actually a skinned mesh, and designed in 3ds max modeling software. Each track contains 16 bones. Top side of bones are useless, but you have to create them too for realistic bending.





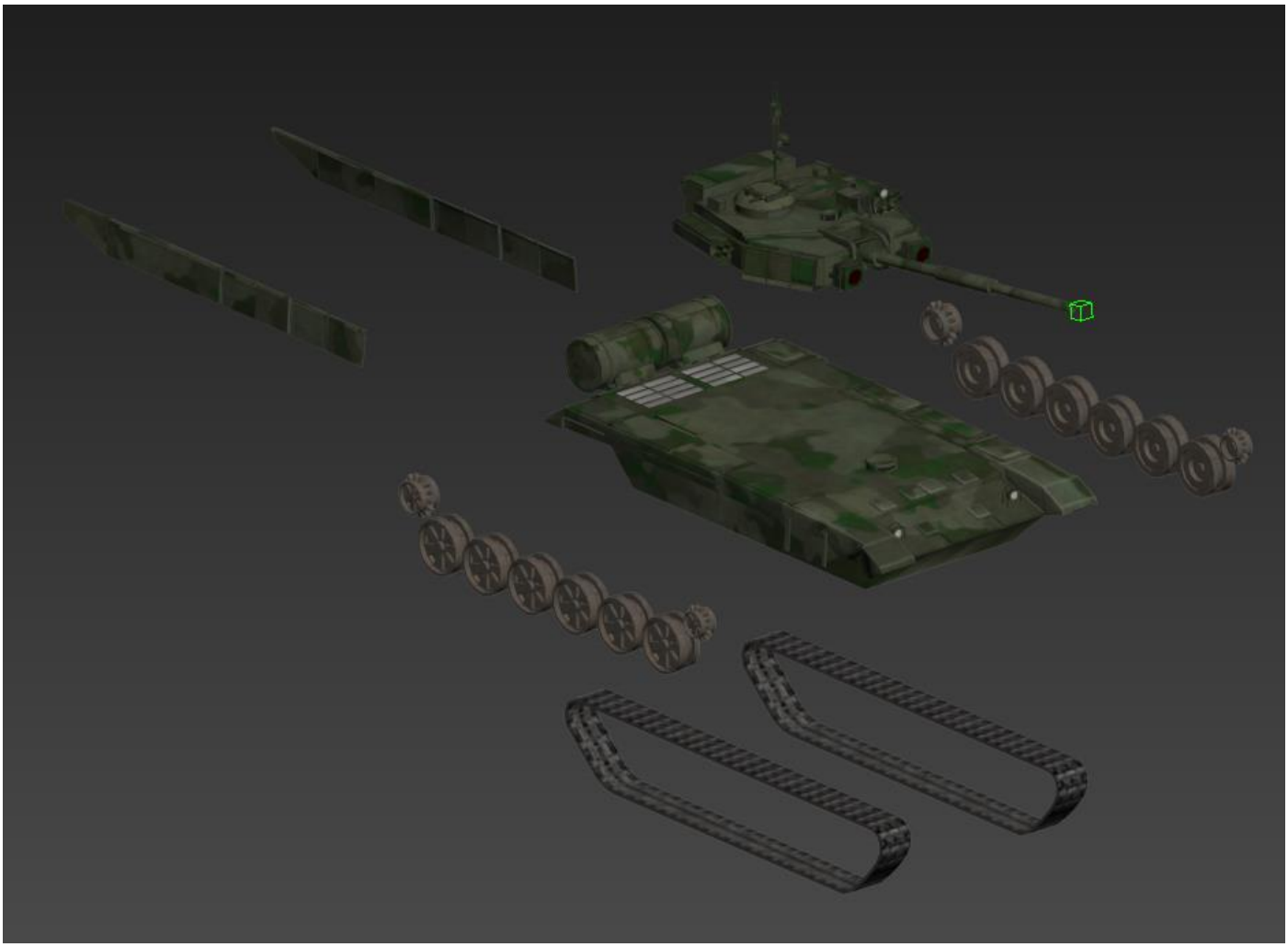
Buttom side of bones should be exactly at same line with above correspoing wheel like this;



Package contains preconfigured tank track for 6 wheel vehicles. If you are getting trouble with creating new track for various number of wheel tanks, just contact me.

How to Setup Your Tank

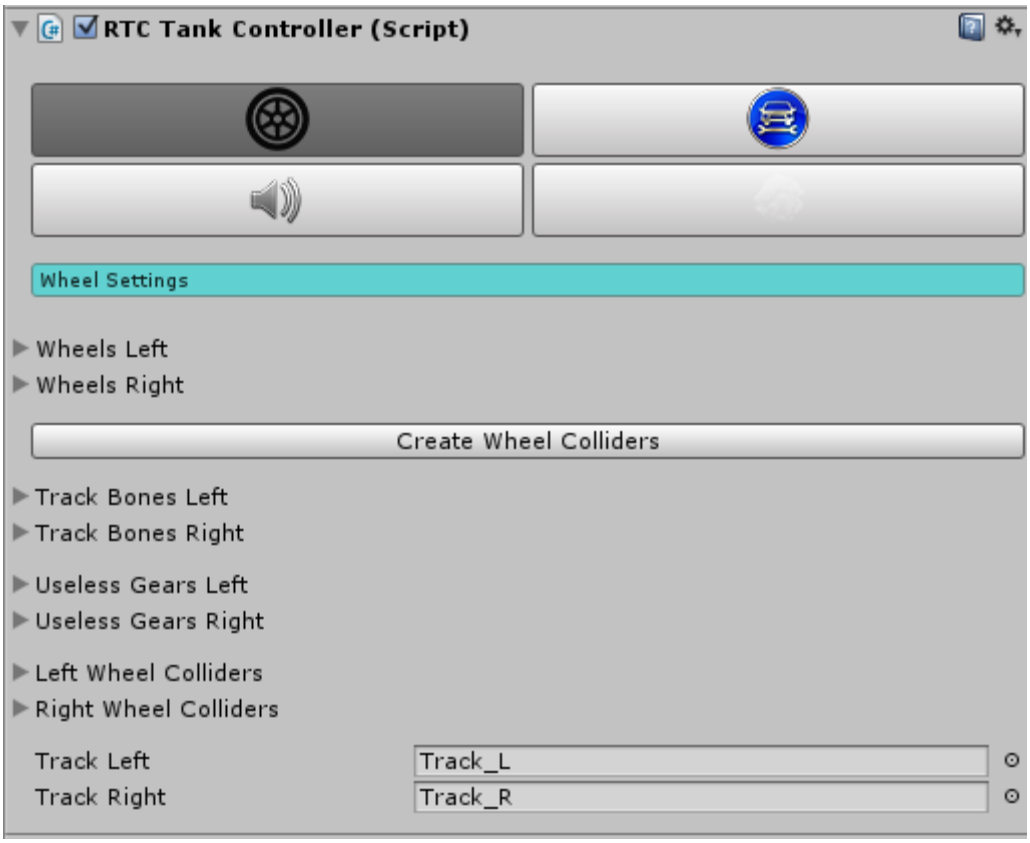
Your tank model must be rigged first. All of wheels, main gun, barrel, and all individual parts must be unique gameobject. Like this;



If your tank model is just one mesh, you have to rig it yourself. But all good tank models on Asset Store are rigged nicely.

Here is a hierarchy view of the tank model. Everything is well grouped and organized.

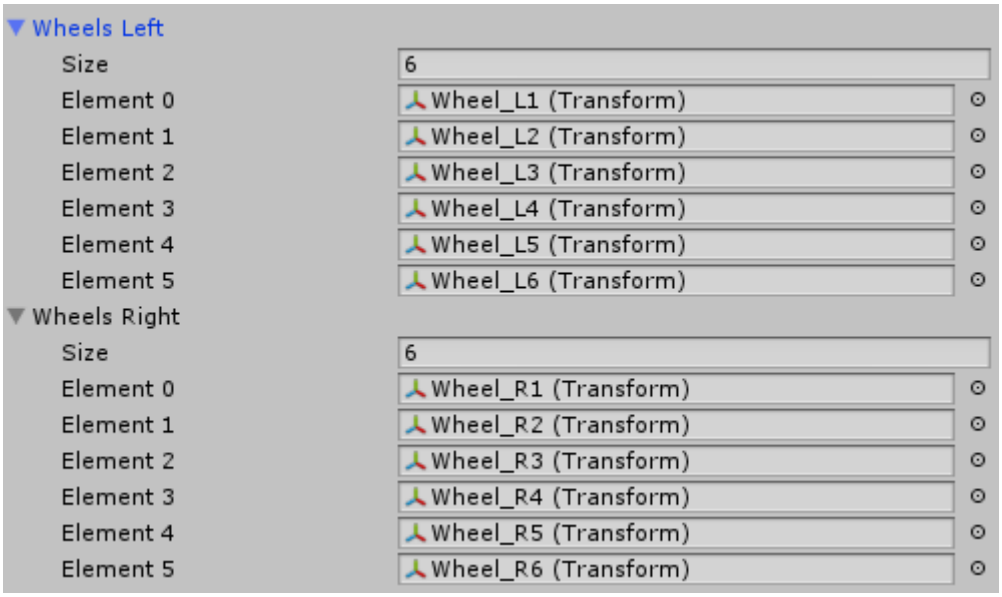
This is the tank controller editor panel;



I highly recommend you to do first, is set your individual parts of your tank's name properly. E.g. First left wheel name is 1L, second left wheel name is 2L, third left wheel name is 3L...

Your main gameobject scale size must be 1, 1, 1. Otherwise, wheelcolliders will be placed at wrong places, and rigidbody will not work as expected.

When your naming is completed, you can simply select your wheel transforms each left and right side. Then click "Create Wheel Colliders" button for generate proper wheel colliders.



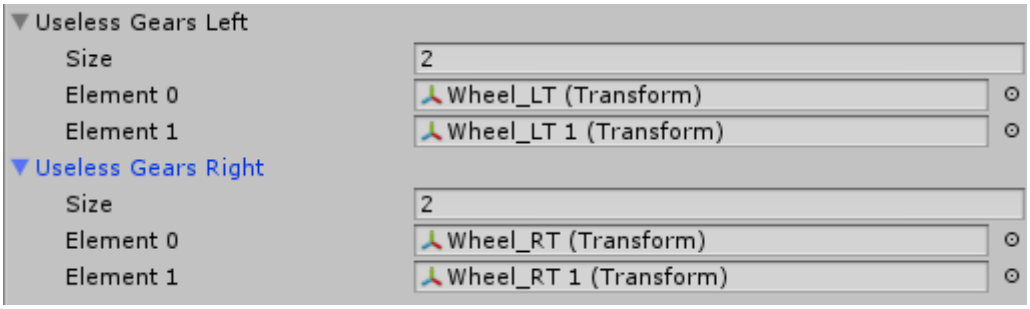
Now you have to select your track rigs. I included rigged track for the package, i'm not a good designer, but it will do the job . If you want to make your own track model, you have to rig your track nicely.

Track rigging

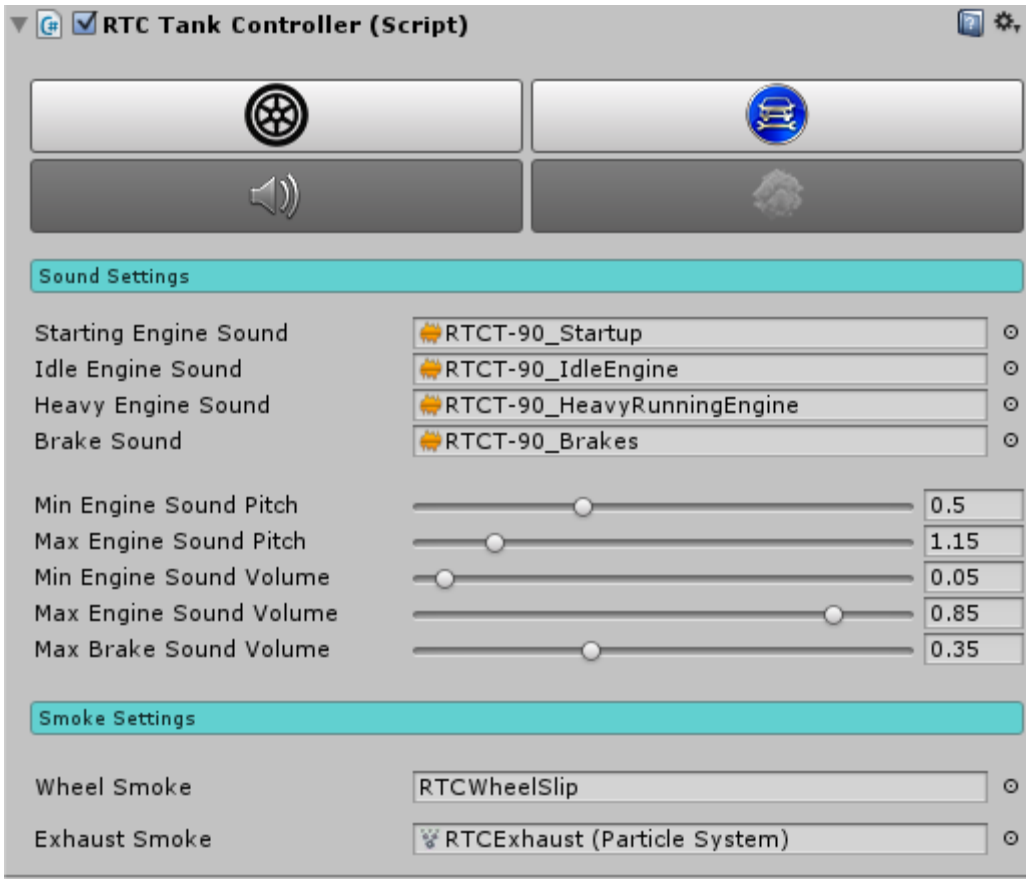
https://www.youtube.com/watch?v=1s4x-54OYTY

Select each bones for corresponding wheel colliders. If you have 6 wheel colliders on each side, your track model has to 6 bones at buttom of the track, and should be same position(x, z) with your corresponding wheel collider. May sounds like confusing, but it's pretty easy to do.

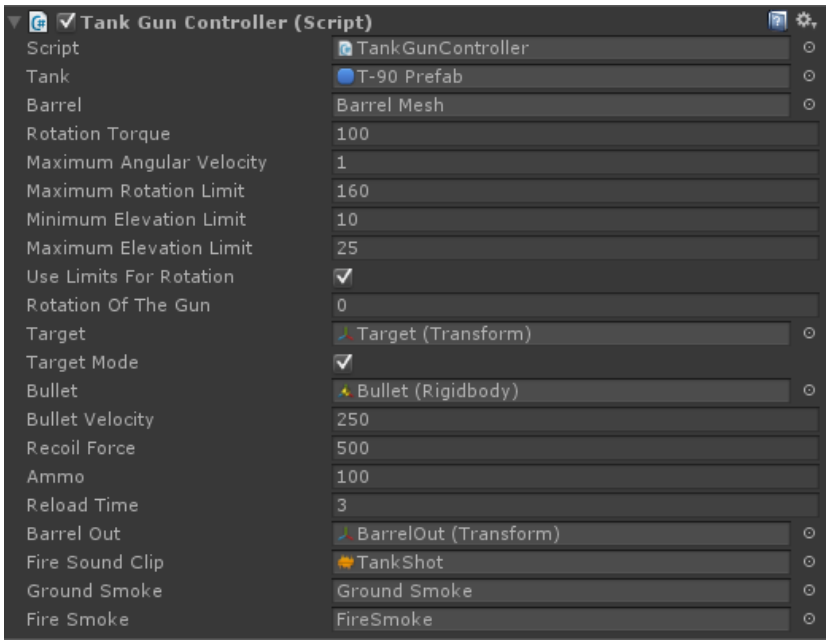
After track bones setup, you will find useless gear transforms. Actually, these are gears above wheels, and tense system for tracks. If you don't have any gears, leave them.



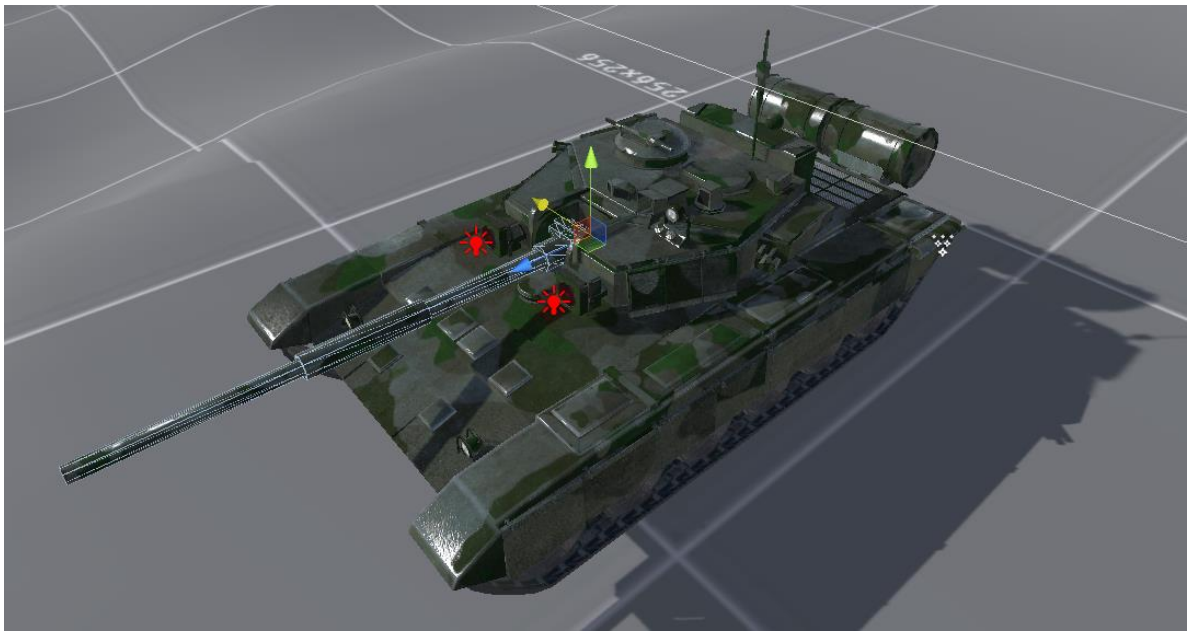
Tank configuration, sounds, and smoke effects;

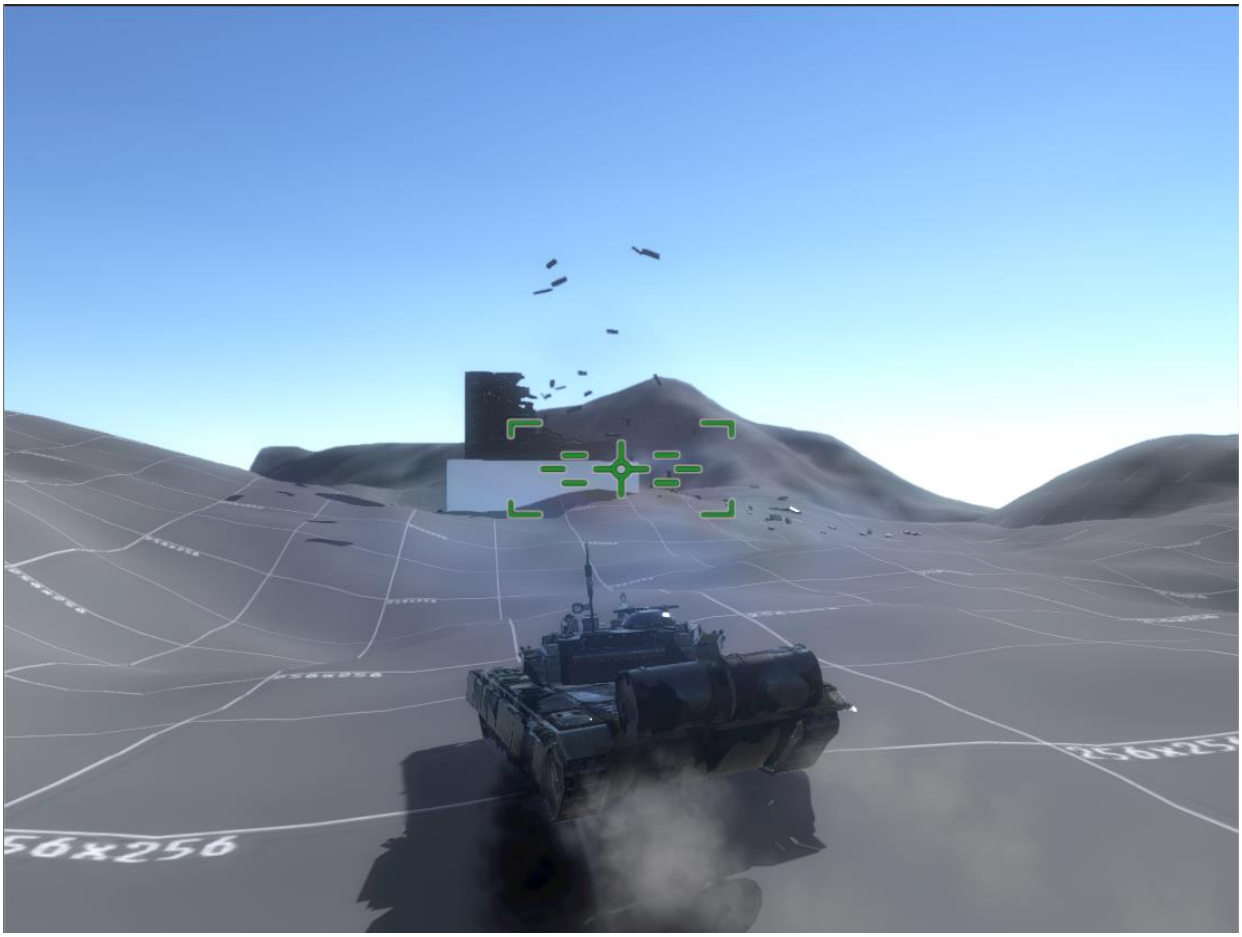


How to Setup Your Main Gun



All settings are clearly understandable i think. Ah, there is one important thing about barrel mesh. Your barrel pivot position must be placed to elbow. Just like this;





If you are getting trouble with creating tank setup, just check demo scene and prefabs. If you need to ask anything about package, just e-mail me!

Contact:

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