Virtual Reality FPS – Charactersystem
(Short Guide)

Open your own Unity Project and import this asset. To ensure that your inputs are applied correctly, replace the "YourProject/Projectsettings/InputManager.asset" file with the one from this asset.
To get an impression of what you can do with this package, open a scene from the asset and get yourself a little familiar. You can download an Android demo from the Google Play Store.

There are already two player prefabs given (with C# + Js). Use these templates as you like.
Both are models from mixamo and are next to other characters free in the Unity Store available.

The player is controlled through these three scripts:

- *VRController.cs*
- *VRInputController.cs*
- *VRCharacterMotor.cs*

The main script is the *VRController.cs.* Starting with the rotation, weapons, shooting, health, GUI, crosshair, muzzle and particles - everything is controlled here.
You can find the other two scripts for free on the internet. I have only implemented the control for sound and animations in there.

In case you want to create your own character, watch the description on the second page.
The most important thing is to make sure that your model is rigged as the examples.
http://www.mixamo.com/c/3d-characters
http://www.mixamo.com/upload_character

Oculus Rift, Durovis Dive or vrAse users
The *OpenDiveSensor.cs* is already included in this package. The Oculus Rift SDK however, you must download yourself from their page.
Attach the script to the "neck" of the player and enjoy the virtual reality! =)

At this point I will not go further into the code. I recommend to look at the code itself.
I have commented the most of it and tried to keep everything as simple as possible.
If you have any further questions, don't hesitate to ask in the forum or e-mail me in private matters.
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---------- http://www.youtube.com/watch?v=23QFX2khIN8----------

1. Buy or create your own character with a bone system similar to the one in the demo.
   The easiest way is to buy a model from Mixamo from the unity store.

2. Drag your model and the prefab into the scene and create a ragdoll for your player in T-position.
   If this is your first time doing this watch my video.

3. For safety go to all bones, set "Is kinematic = true" and "disable" all colliders like BoxCollider, SphereCollider etc. This prevents the ragdoll behavior, when the game starts.

4. Before we come to the animation, make sure that only the legs of your model are animated!
   Open your animation model with blender or 3ds Max and delete all the animations keys above the hip. (T-Position) If you don't have animations yet, create them anyway as an example, so that you don't get errors later. Have you done so, choose your model.fbx in the project view, go to Animations and create the animations "Idle, Walk and Jump".
   Then go to Rig, set "Animation type = Legacy" and "Generation = Store in Root(new)"

5. Click on the model in the scene and add the three animations to the animation component.
   (You can always watch at the settings of the prefab, you will need him now anyway)

6. Open the hip of your model and put the "Neck/Neck1/..." into the Spine
   (We have more control options this way)

7. Now we have to do some drag and drop (gameobjects) from the prefab to your model.
   Hence make sure that your model has the same position than the prefab.
   Move(not copy) the DeadCamera3D, FPS Camera and Pistol from the prefab to the same location of your model.

8. Add these components to your model:
   - VRController
   - VRInputController
   - VRCharacterMotor
   - Audio Listener
   - Audio Source

   ->Afterwards copy all component values from the prefab to your model
   (Right click on the component of the prefab and choose "Copy Component",
   then right click on the same component of your player and "add Component as values")

9. Add the MouseLook(script) to the Neck.
   Start the Game and you will see, that apart from the arm position your player is ready to go ;)

10. In case your player makes any strange movements, here is a list of possible reasons:
    - Incorrect axes from Model (Z-Axis -> is the view direction of the model and bones)
    - You forgot to delete some animation keys. Use "STRG-A" to get them all, then hold "alt" and remove legs from selection.
    - Your model has not the same bone structure.
    - Change the arm rotation only below the shoulders(look at the template)