Archery - Starter Kit

Thanks for purchasing!

How to control the character:

On mobile platforms:
Use the screen buttons to move the player right, left and jump
Press anywhere on the screen and drag to shoot

On PC:
Use w,a and s or arrow keys to move character
Click anywhere and drag to shoot

Things you should know:

When the character die instead of play a death animation i make the player character an ragdoll. There is separate ragdoll in the scene that will be active only after the player die.

Scripts

I will explain only classes some classes here, the others are more simpler so just check the comments in the code.

Archer Contro.cs:

This class will make the player run and jump, works on pc and mobile, if you want expand the character control you should check this class.

Parameters:

RunVelocity: How fast the player will move

JumpHeight: How high the player will jump, in any gravity value
FallMultiplayer: How fast the player will fall after jump

Gravity: More high this value more fast the player will reach the jump peak and return to the ground

To more information check the comments in the code, there are few methods on this class and should be easy understand, contact me if you need.

EnemyLauncher.cs

This class is where the enemy launch his arrow and calculate everything.

This script is attached on the bow game object which is child of enemy game object

Parameters (All of them are visible in the inspector)

Target: Target game object;
Origin: Where the arrow will be instancied
ArrowPrefab: the prefab that will be instantiated and used as projectile (arrow).
Arm: the arm when enemy is alive this will be same position of the bow game object

Angle: The angle that the projectile/arrow will be launched
MaxDistance2Shoot; The enemy will shoot only if the target is close enough
Time2Anothershoot; The fire rate, defined in seconds

There is a method called DecideWhenShoot that consider a distance of the target and time to another shoot like the fire rate, If he can shoot he will call the Launch method which will make i will explain what he is doing.

The first method will instantiate the arrow prefab, will be on the same position and rotation of origin game object which i define as the bow.

Next I get the target, which is the player (GameObject) so the enemy will shoot on the position of the game object the you say that is the target in the inspector this is the first parameter called **Target.**

The next thing i calculate the x and y distance from the target, which is made in the FindxDistanceAndyDistance() method.

Using this equations: https://en.wikipedia.org/wiki/Projectile_motion we get the initial velocity that the projectile need to reach the target. This is implemented on the CalculateInitialvelocity().

So i get the the x and y velocity in FindxVandyV() and finally apply this to rigibody2d in the LauchProjectile() method.

The others scripts of this projects are very simple and i will not explain here, check the comments in their code if you want know more about then.

BowPlayer.cs

This class is where the player launch his arrow, will read the inputs to press and drag, also will display a red line while doing that

Parameters:

maxForce: More high is this, more far the arrow will go;
maxVelocity: A limit for the velocity of the arrow.

For more information check the comments on the code

Contact

If you have any question send an e-mail to: heisenberglopes@gmail.com.