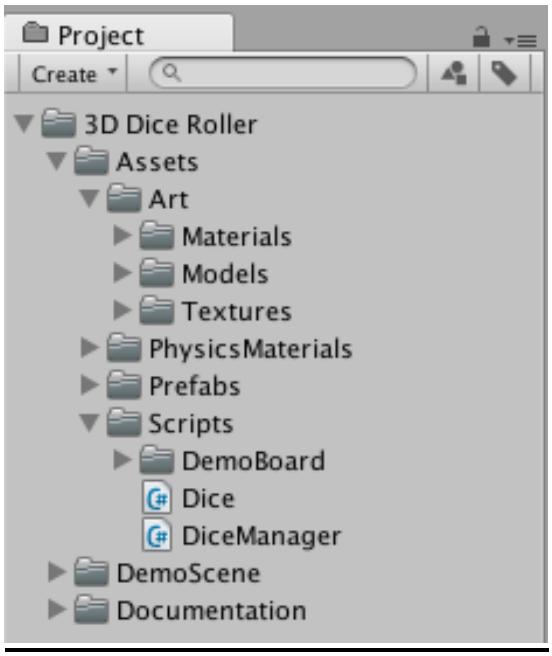
3D Dice Roller Documentation

Hello, thank you very much for using 3D Dice Roller! This document will explain how to use the package and what each script does.

A demo video of the package can be found at: https://youtu.be/71rEU2d_nyc

Getting Started

After importing the package, you should see 3 main folders: Assets, DemoScene, and Documentation. The Assets folder contains Art, PhysicsMaterials, Prefabs, and Scripts folders.



The Dice

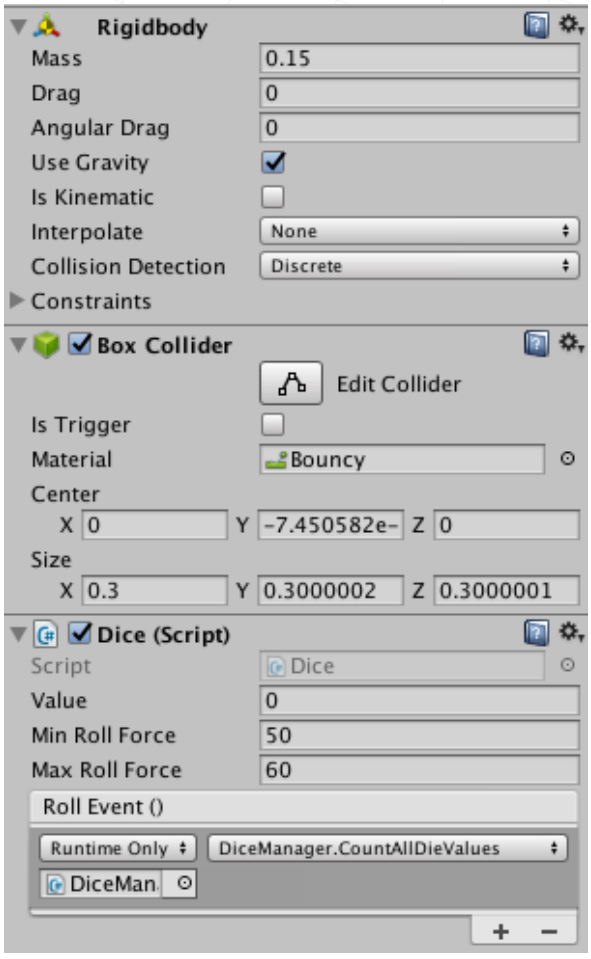
The dice gameobject has a cube mesh with a texture. There are 3 components needed for the dice to be able to roll properly:

Rigidbody: I use a small mass value (0.15) in the demo dice.
Box Collider: I use a bouncy physics material.

Dice.cs: This script must be on each dice you intend to roll. It contains 3 variables and a Roll Event called when it finishes rolling.

- **Value:** This shows the value of the dice (1-6) after it stops rolling. Nothing needs to be entered here.
- **Min Roll Force:** Minimum strength of force exerted on the dice when it is rolled.
- **Max Roll Force:** Maximum strength of force exerted on the dice when it is rolled.

A random value between the min and max Roll Force is chosen each roll.

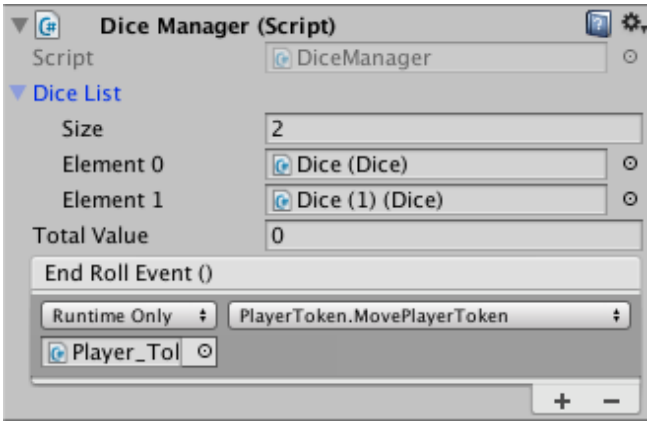


Roll Event: This is called when the dice finishes rolling; any public functions can be called here. To calculate the total value of multiple die, we must call the CountAllDieValues() function from the DiceManager.cs script. This can be skipped if using only 1 dice.

Public Function: AddForceToDice()
This rolls the dice, pushing it upwards if the dice isn't already rolling. The value of the dice (1-6) is calculated and Roll Event is called when it stops moving.

Dice Manager

The DiceManager.cs script keeps track of all the die and what their total value is.



Dice List: The list can be any size, depending on how many die you want to roll. You must drag in each Dice gameobject from your scene into each element.

Total Value: This calculates the total value of the die when they all finish rolling. This field doesn't need to be touched.

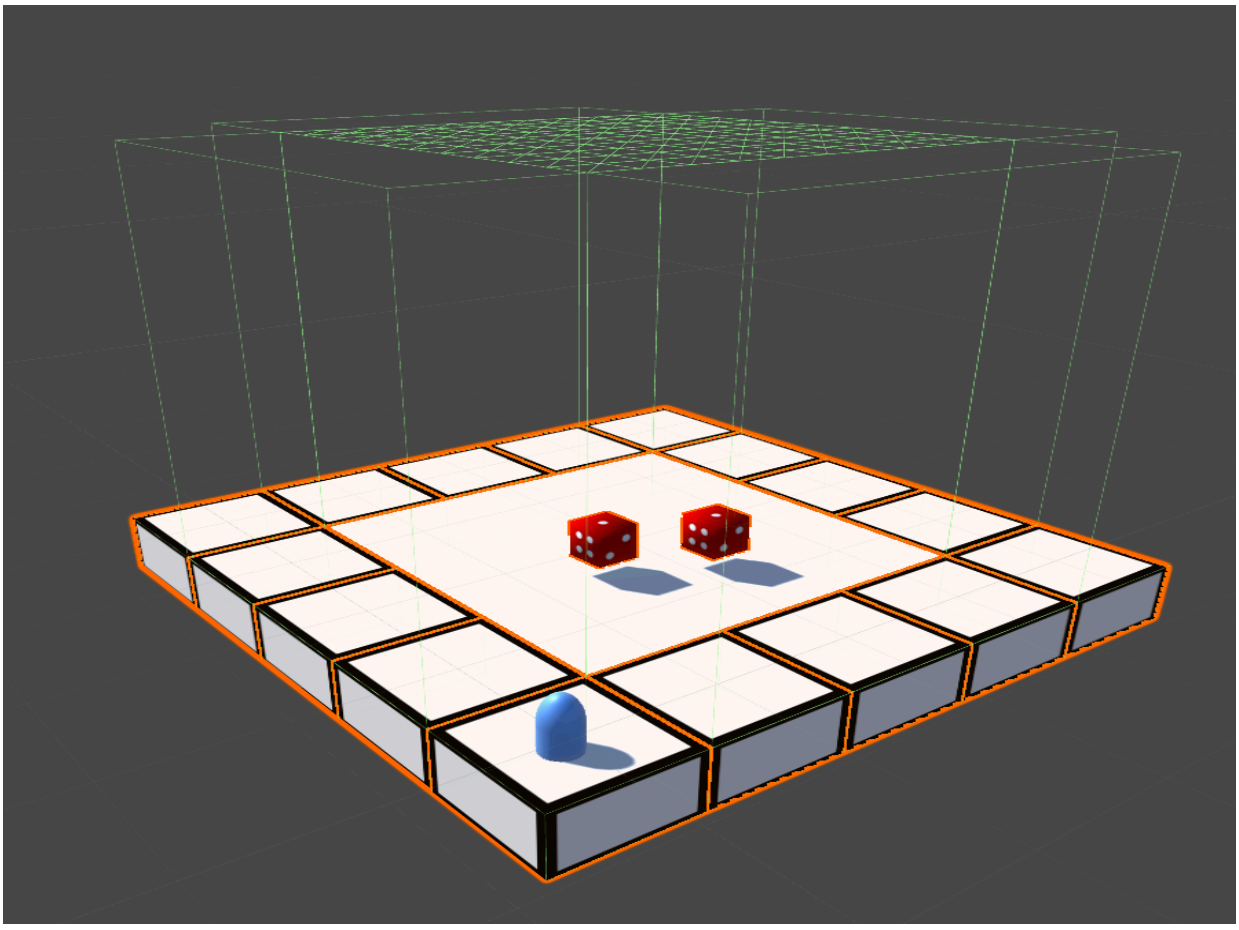
End Roll Event: This is called when all die in the list are finished rolling. In the demo scene we call MovePlayerToken() to move the PlayerToken gameobject x spaces (x being the Total Value of the rolled die).

Public Functions:

RollAllDie(): This calls the AddForceToDice() function on every dice within the Dice List.

CountAllDieValues(): This adds up the value of each dice in the Dice List after they have all stopped moving.

Demo Scene



The Demo Scene demonstrates how 3D Dice Roller can be used to move a token (blue cylinder) an amount of tiles equal to the value of the die. Invisible **colliders are necessary to keep the die within the game board**. The colliders have a bouncy material on them.

Demo Scene (cont)

I will briefly explain the non-dice parts of the demo scene. The board and player token were designed to show off the die, they are **not necessary** to use the die. The demo scene is meant to show how the die can be rolled with a button and how to use the calculated value to do something.

Most of the action takes place in the PlayerToken.cs script.

PlayerToken.cs: This script is attached to the blue cylinder. It contains 3 variables:

- **Starting Tile:** Which tile does the PlayerToken start on?
- **Dice Manager:** Reference to the DiceManager script in the scene.
- **Value Text:** Reference to the Text object located above the Roll Button. This displays the value of the roll.

Public Function: MovePlayerToken()
This function moves the token an amount of tiles equal to the Total Value of the DiceManager.

Each space on the board is an individual Tile gameobject containing a Tile.cs script.

Tile.cs: This script just contains a reference to the next tile. The player token uses this to travel along the board, moving to each tiles' position.

Thank You!

Thank you for using 3D Dice Roller! Please email me at sage00miller@gmail.com if you have any questions or problems with the package.

I would greatly appreciate a review of this package on the Unity Asset Store! What do or don't you like? What other features would you like to see? Your feedback will help me improve 3D Dice Roller.