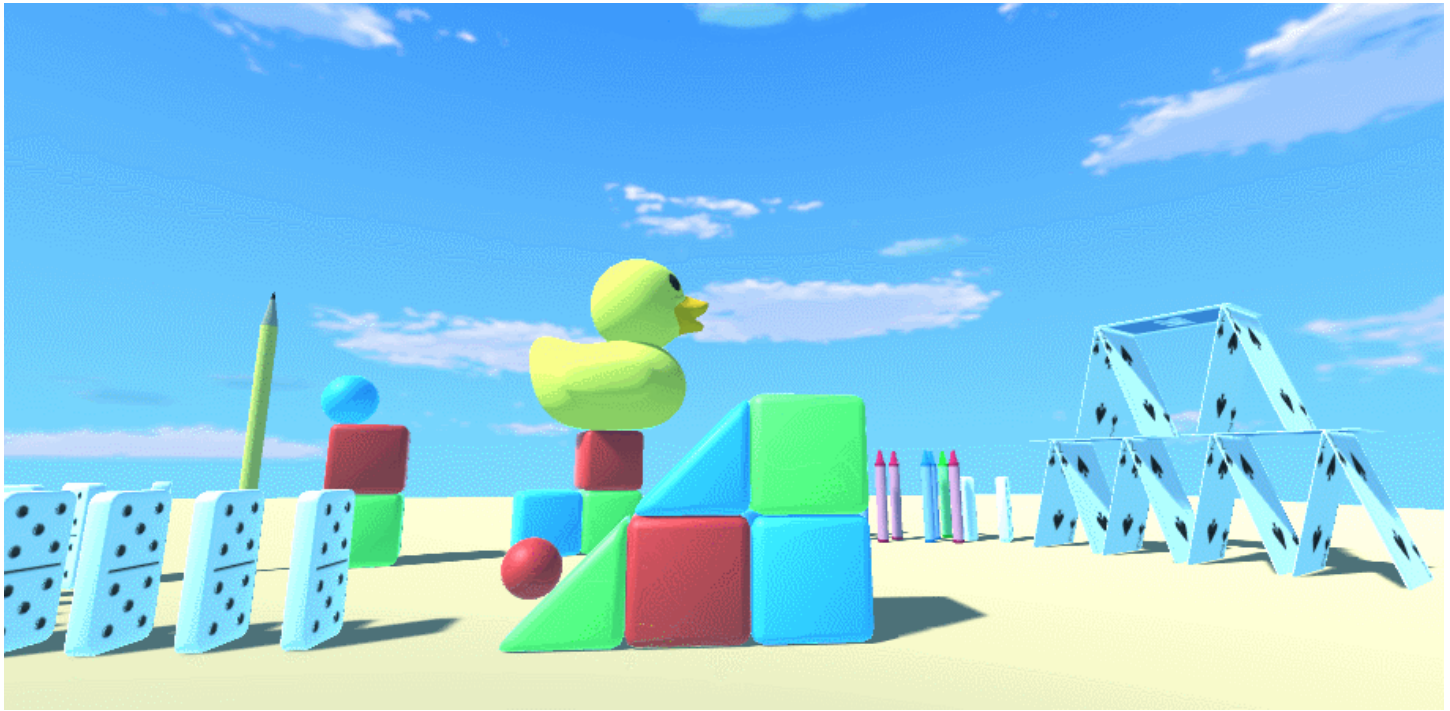# Section 6   Physics Simulation

Let's create our own little physics simulation / almost Rube Goldberg machines.

Required Project Features

The project should implement each of the following features.

Initiate chain reaction
Project should feature some way to reliably initiate the chain reaction when the project starts.

Example:
Use a ramp made of building blocks to roll a bouncy ball down into a row of dominoes.

Rigidbody and Colliders
Each physics asset should have a single Rigidbody component as well as appropriate Colliders to approximate the shape of that object.

Physic Materials
The project should incorporate at least one Physic Material demonstrating usage of either the Friction or Bounciness properties.

Examples:
• Demonstrate Bounciness by have a bouncy ball bounce up a set of stairs created with building blocks.
• Demonstrate Friction with an object which slides across the floor after colliding with another object.

Physics Assets

Project must make use of the following objects:
· Building blocks
· Sphere
· Dominoes
· Pencil
· Rubber Duck

Project must make use of at least two of the following objects:

· Crayon
· Eraser
· Playing Cards
· Die

Submitting your work

Instructions for how to demonstrate your assignment to the teacher are detailed below. Along with your demonstration, include the C# script used to enact the new interaction.

In-Person Class

If your class is in-person / in the classroom, demonstrate your assignment by playtesting the game for your teacher, showing off each of the three interactions and explaining the intended result.

Online class

If your class is online and students are capable of screen-sharing, share your screen for your teacher to show off each of the three interactions and explain the intended results.

If your class is online and students are not able to screen-share, instead record a gif of the project working using GifCam, and include a note explaining the intended results.