Complex Object Exercise

For this exercise you will take your knowledge of movement, rotation, parenting, and clamping in order to make a functioning complex object. Remember to wrap all models or meshes with empty game objects that have a scale of (1,1,1). This will prevent any child objects from inheriting any scale changes from the parents. Also, the main parent object should have the rigidbody component attached to it. We will get into why when we start to talk about collision. Here are some examples of objects that you can choose to create:

A Bulldozer

This object can be created with a simple cube for the main body, arms to attach the body to the bucket, and a few pieces built with ProBuilder (Free asset) for the bucket. Also, you can look up vertex snapping in the Unity manual when creating the bucket. When using mesh colliders make sure to click the Convex checkbox. Also, the probuilder objects are set to static and will need to have that checkbox unchecked for any moving pieces.

A Backhoe

A Dump Truck

A Crane

You may want to add things like claws, telescopic arms, etc. Just remember to keep the models simple. We are mostly looking at getting the movement of the separate pieces working.