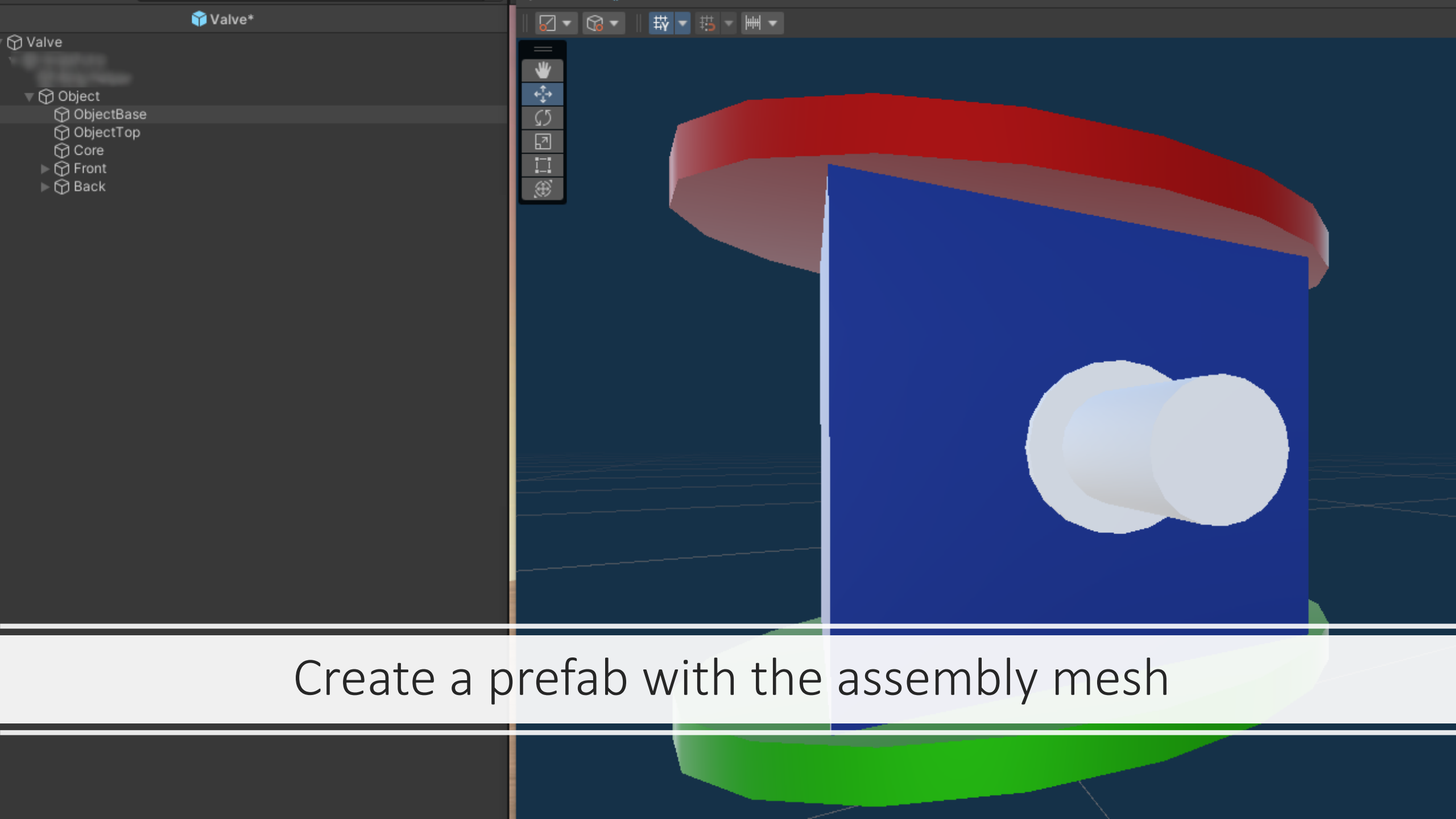
# Creation of an assembly

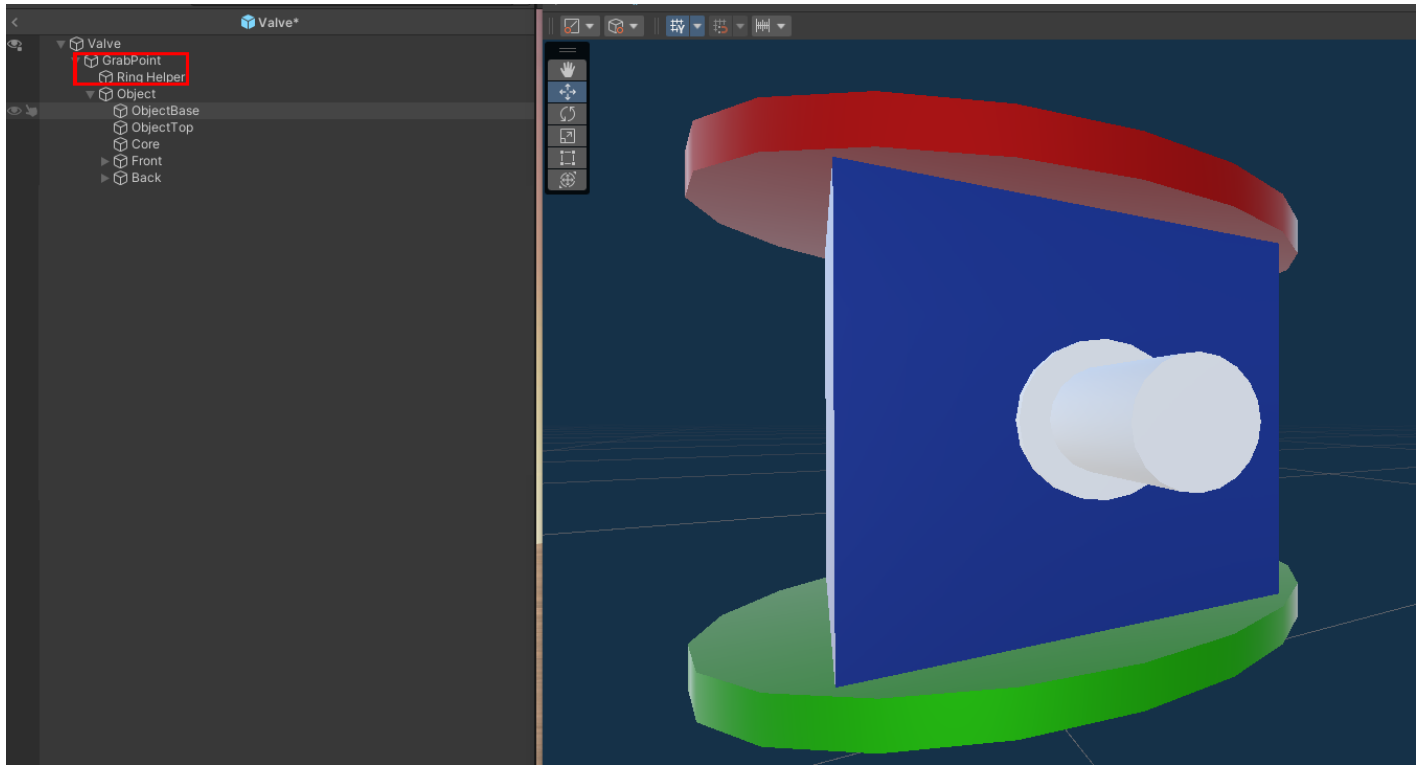
How to create an interactive assembly object, with constraint and physic simulation

Scripting References: SnapZones - Grabbable - Grabber - GrabbableEvents

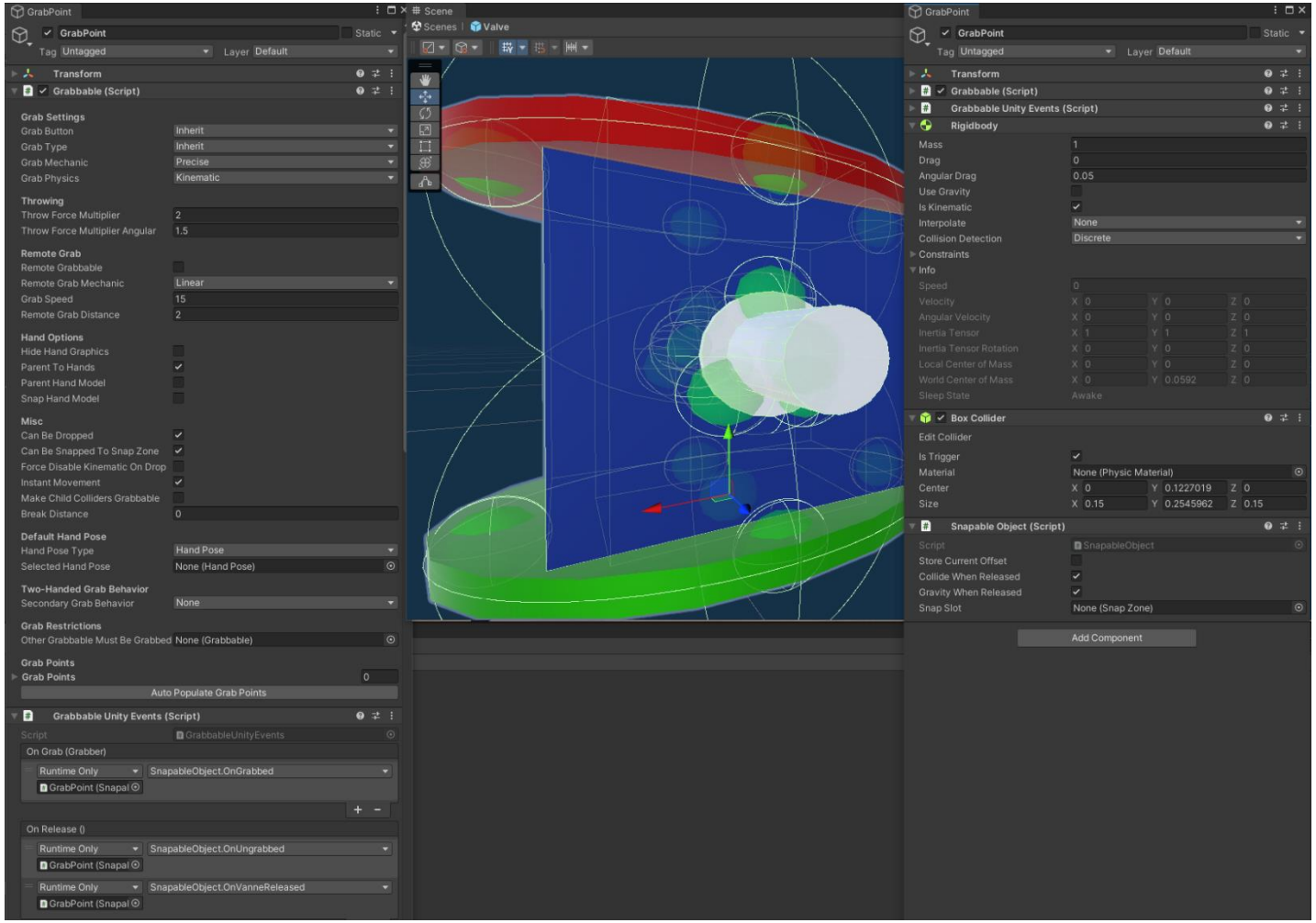



Create a prefab with the assembly mesh

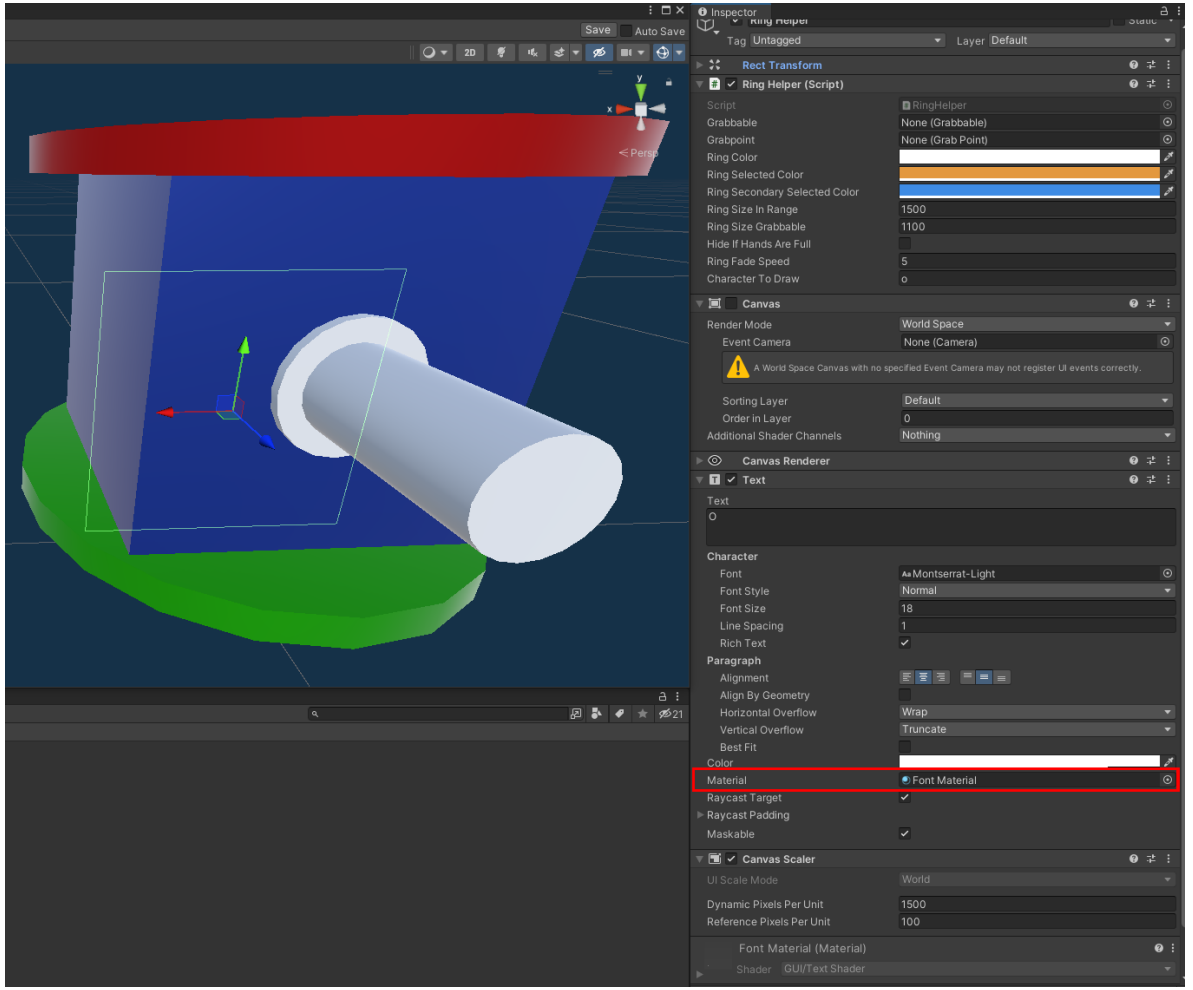
Add an empty child to the object root that will be used as a grab point then add a child to this one that will be a visual helper



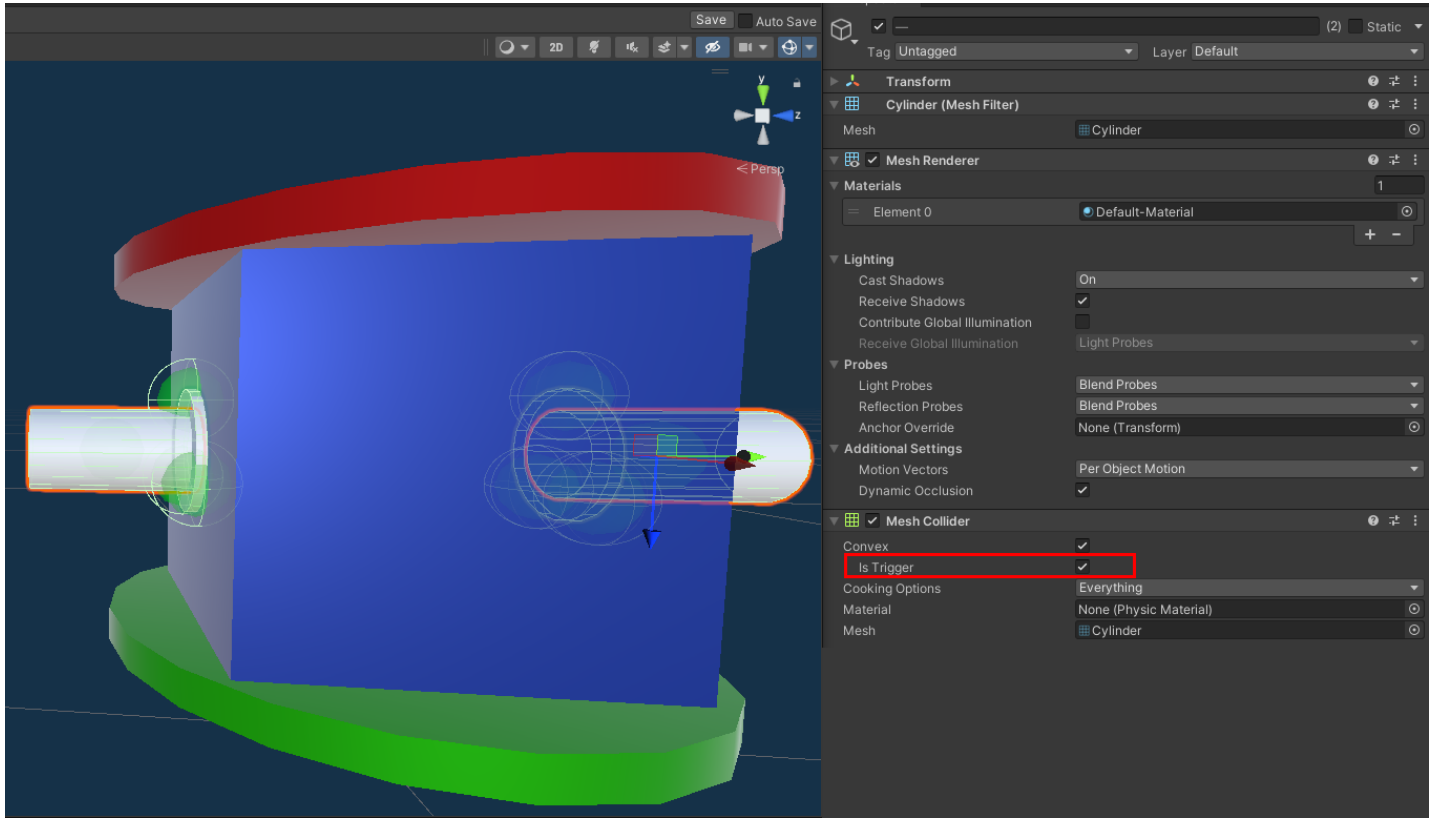
GrabPoint components and settings of the master piece



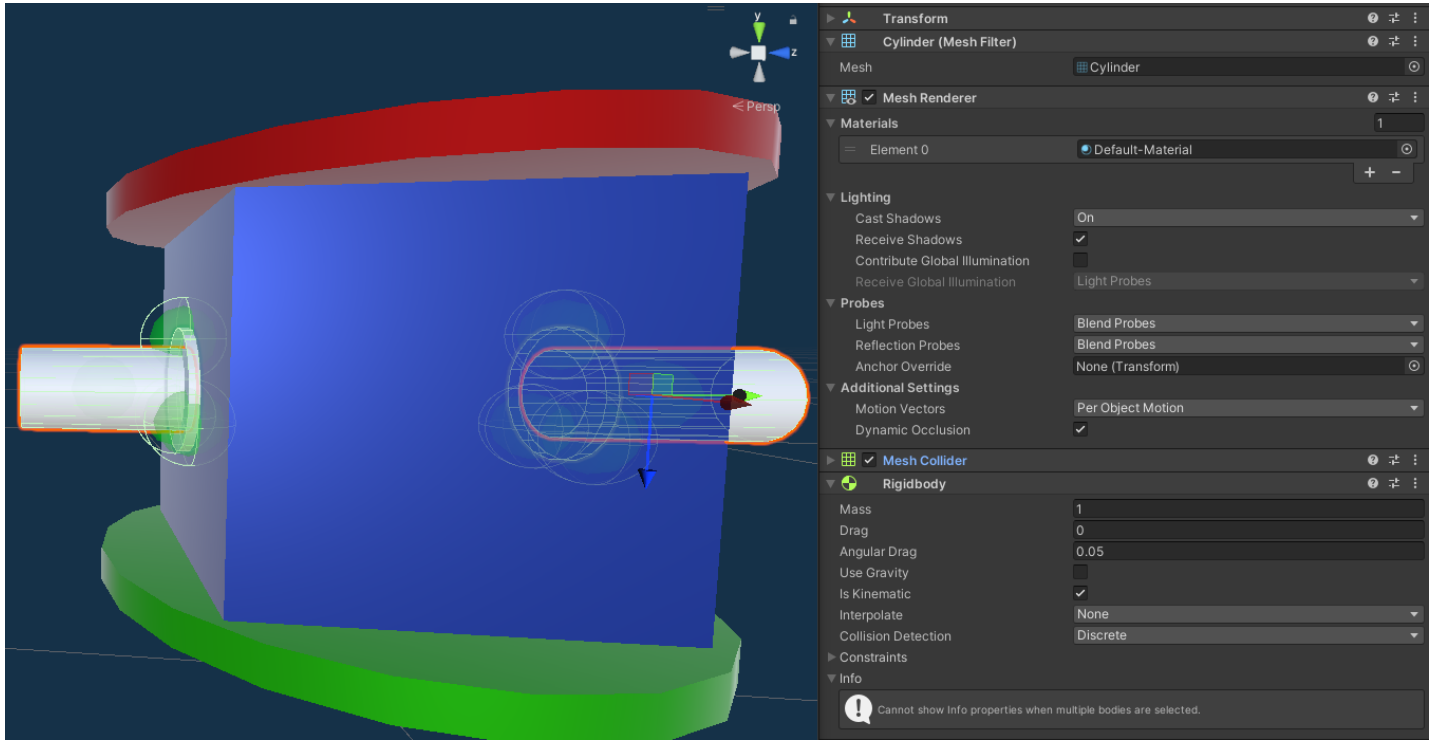
Helper’s components and settings. Be sure to use font material in order to be visible through other objects



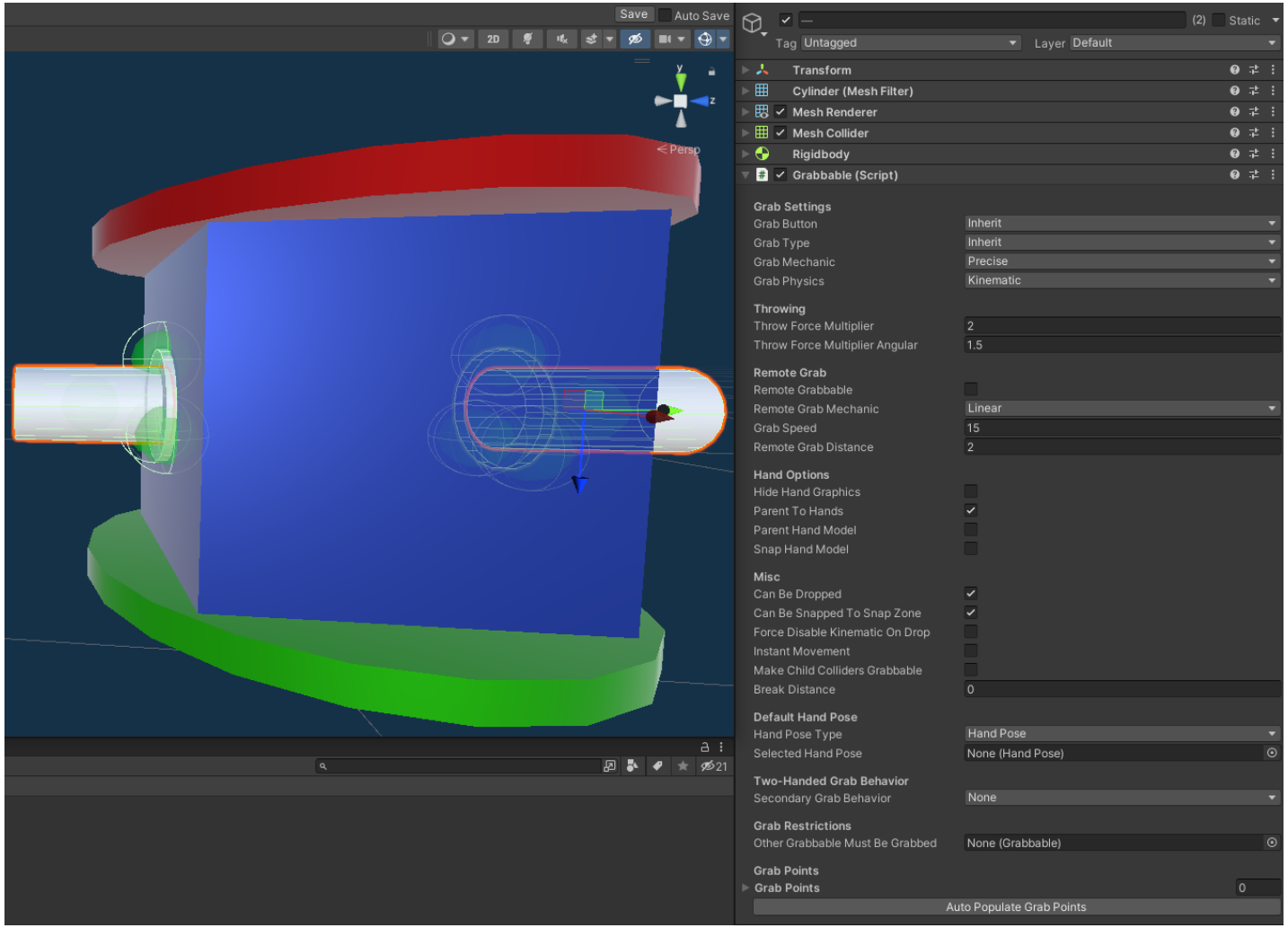
Enable IsTrigger on sub parts that will be moved



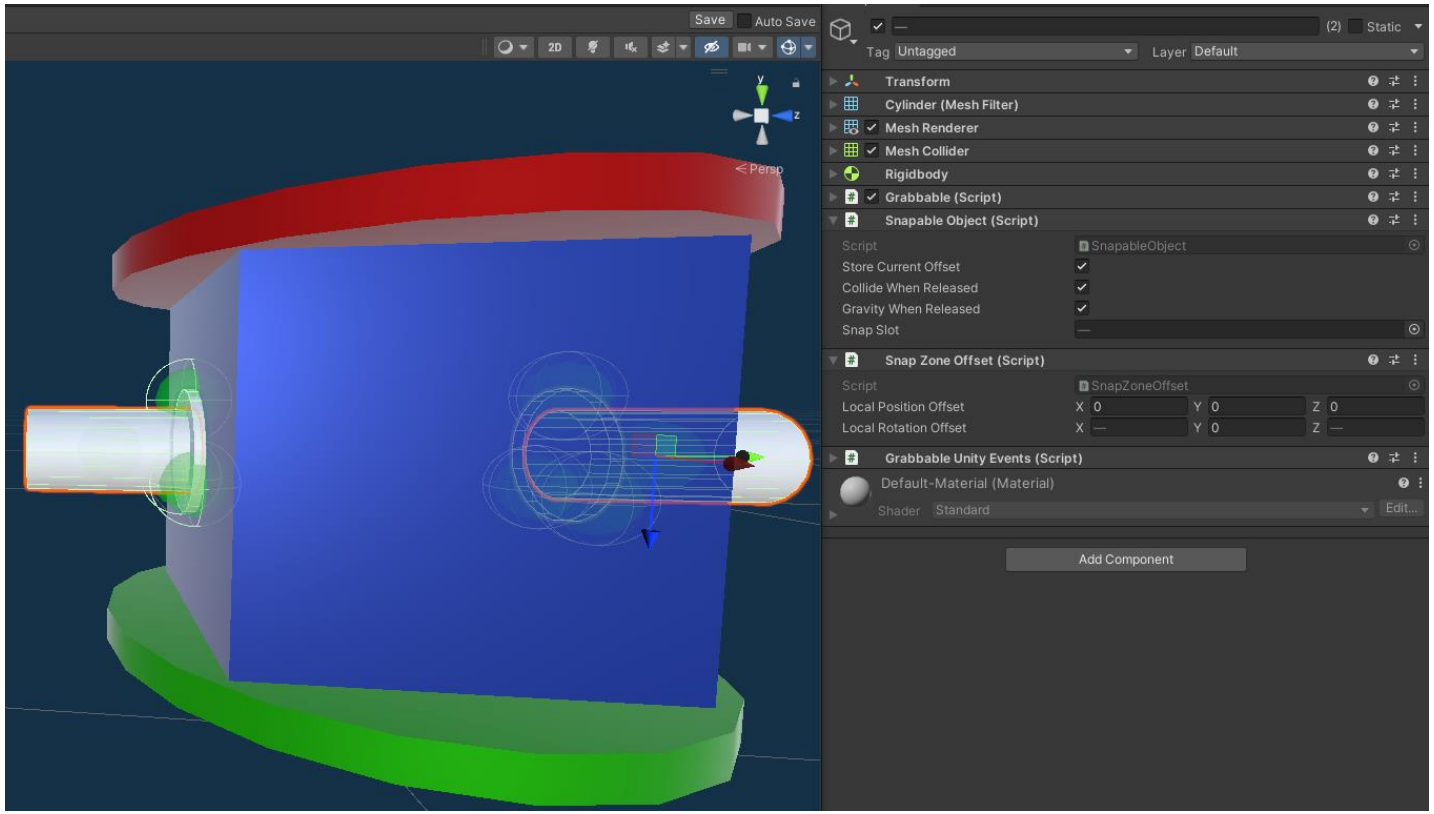
Add to them a Rigidbody with these settings

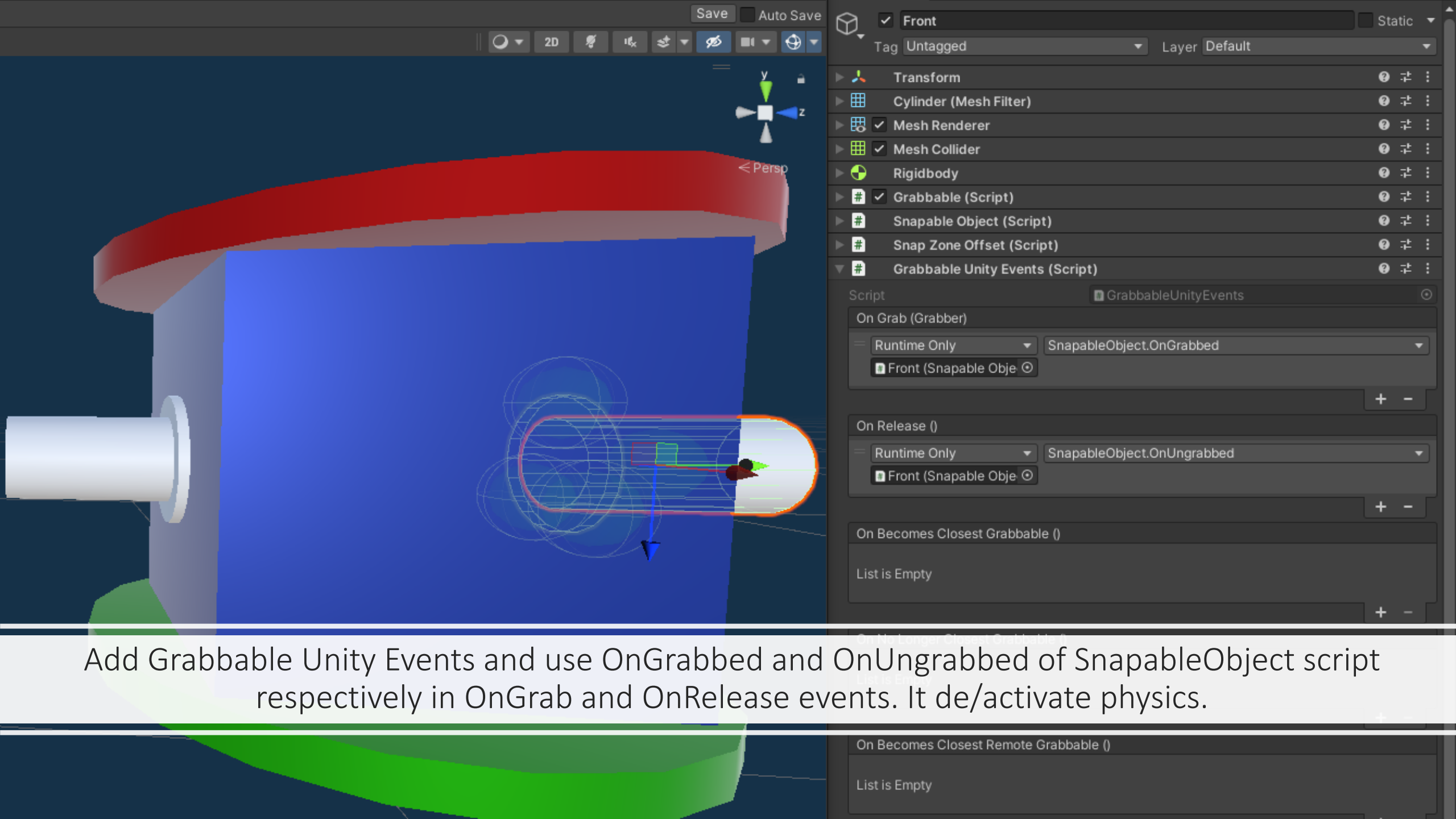


Add Grabbable component with these settings



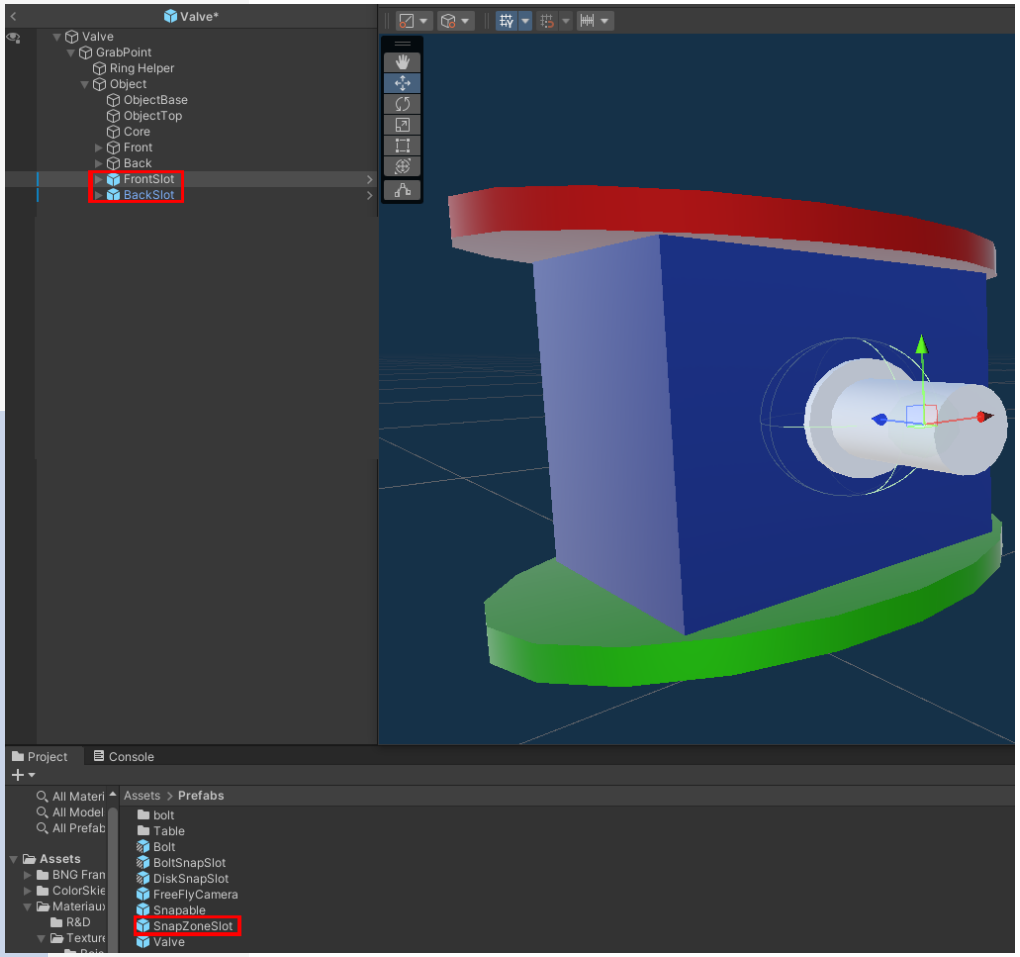
Add Snapable Object component and if the object need of an offset tick Store Current Offset and add a Snap Zone Offset

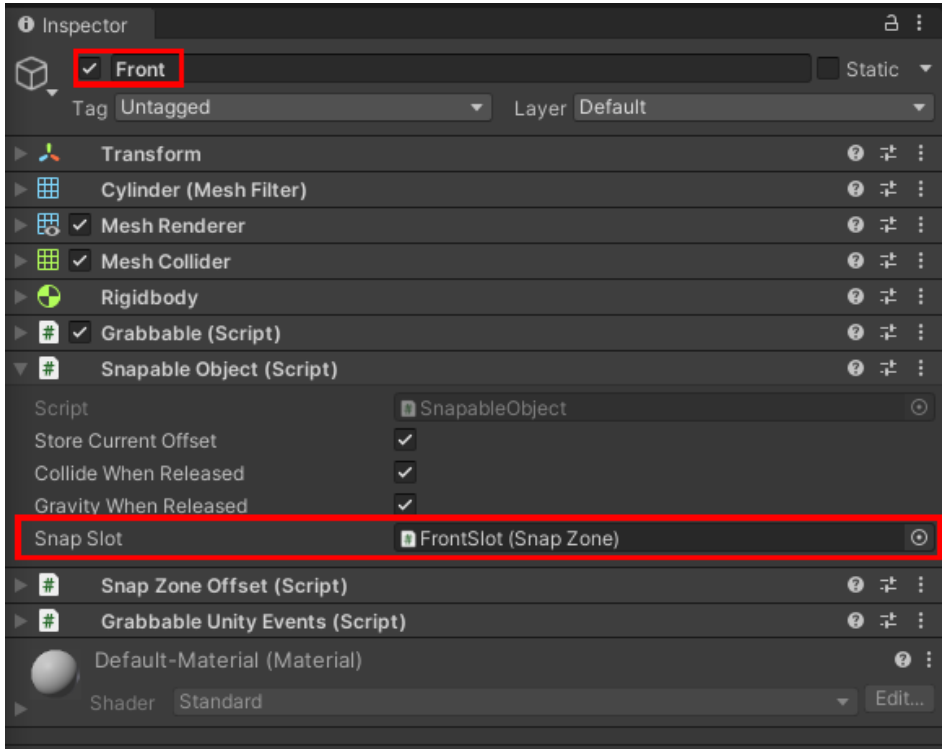





Add Grabbable Unity Events and use OnGrabbed and OnUngrabbed of SnapableObject script respectively in OnGrab and OnRelease events. It de/activate physics.

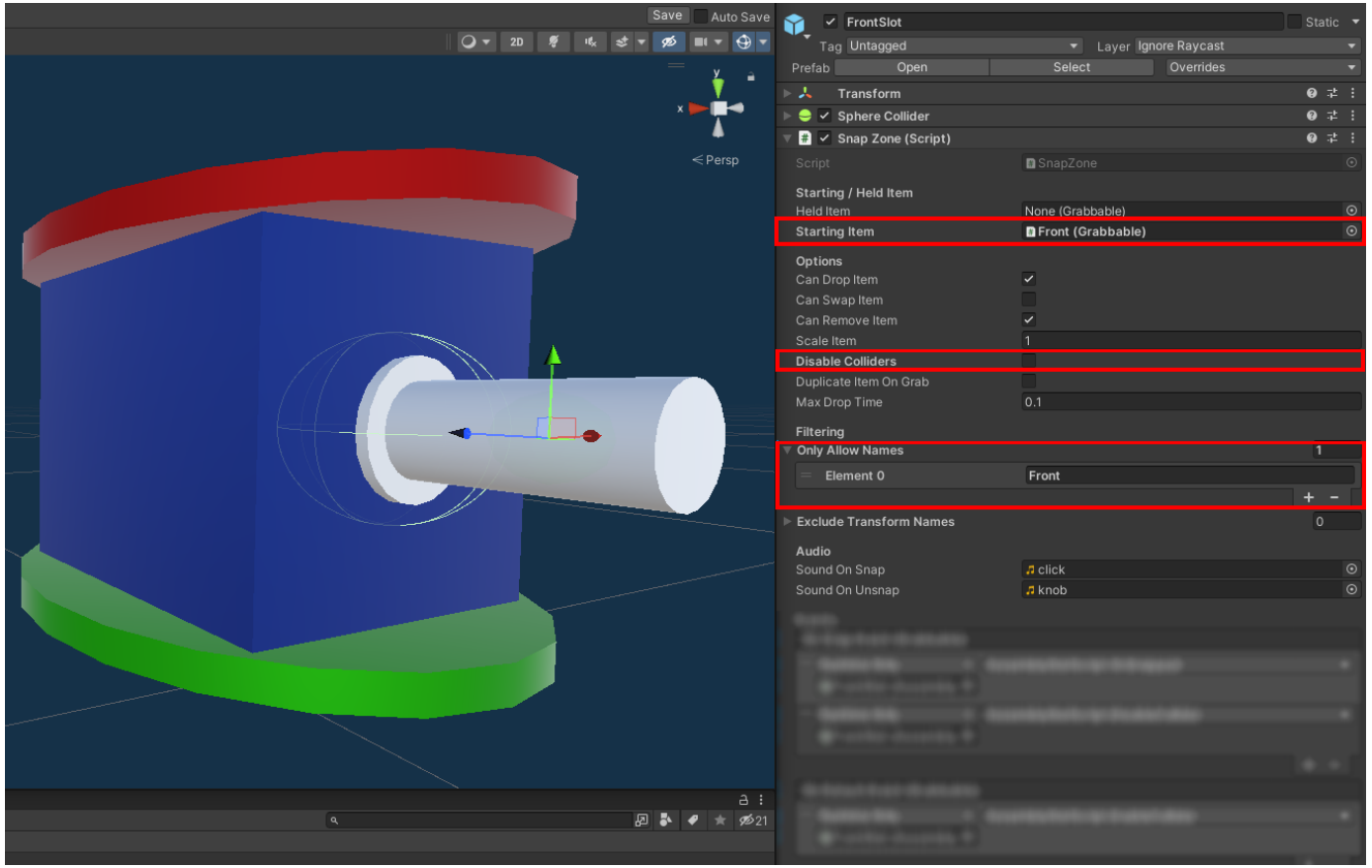
# Add a SnapZoneSlot prefab then place it to the origin of the part that will be in it.



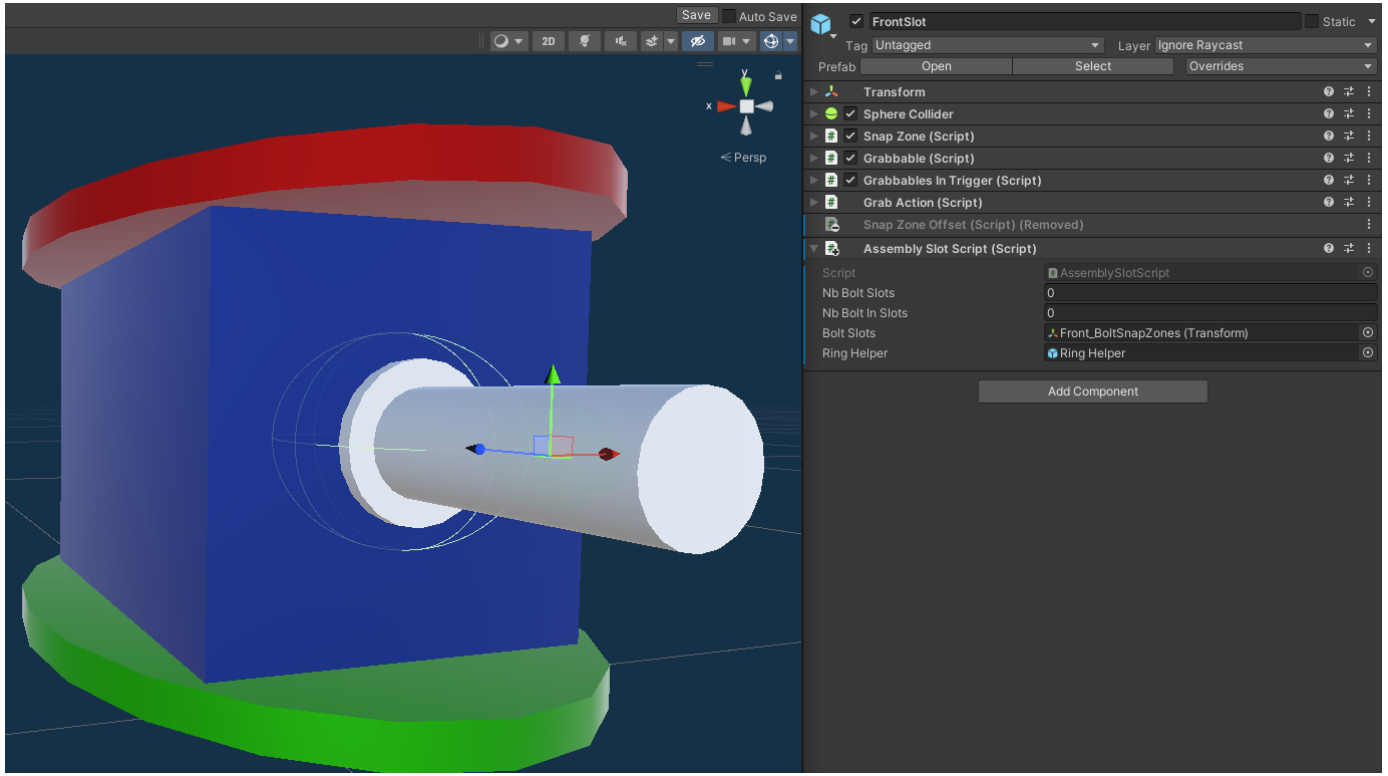



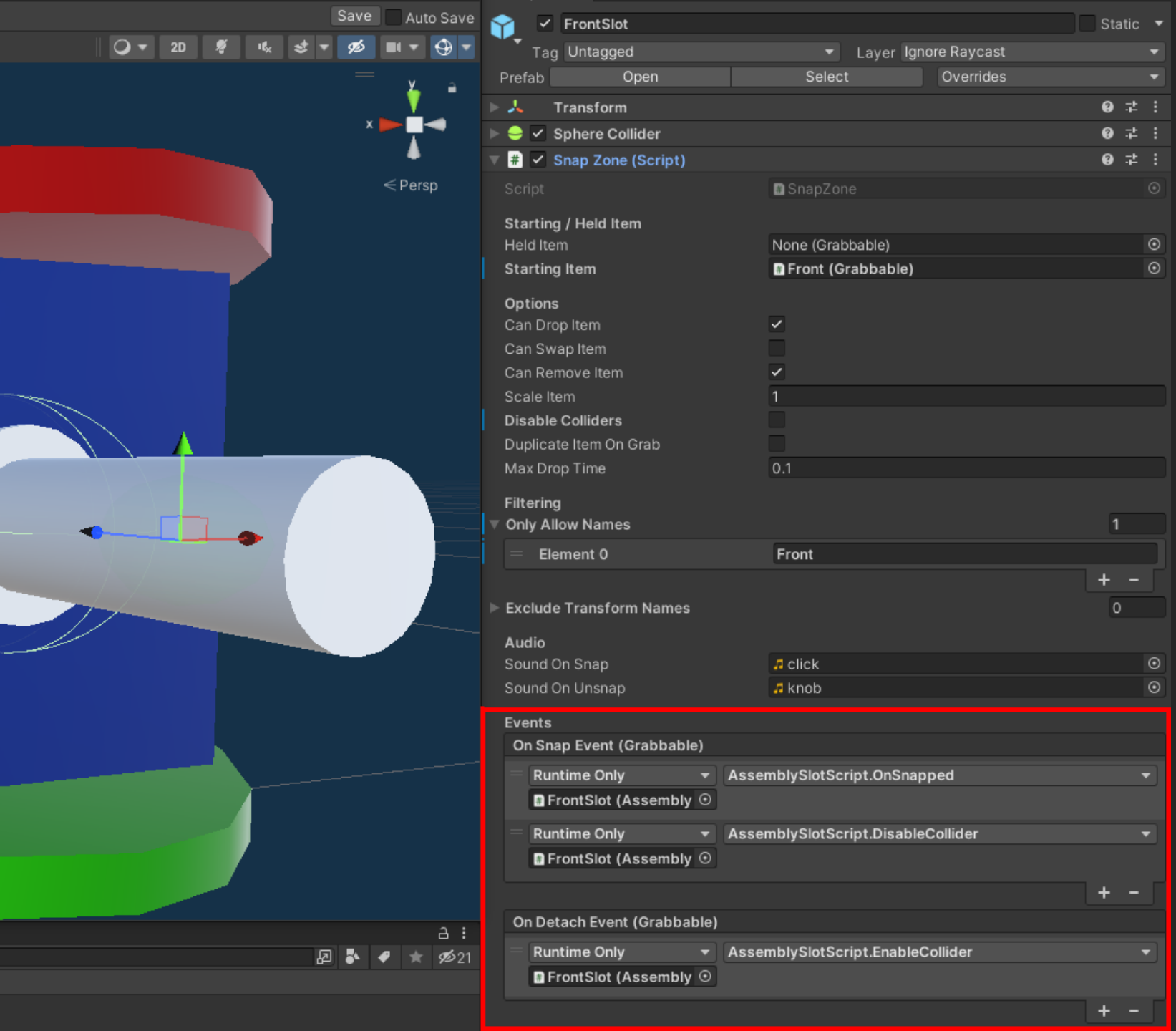

Fill the SnapSlot reference of its SnapableObject with this SnapZoneSlot

Give the object to snap in Starting Item, add its name in Only Allow Names if needed and untick Disable colliders



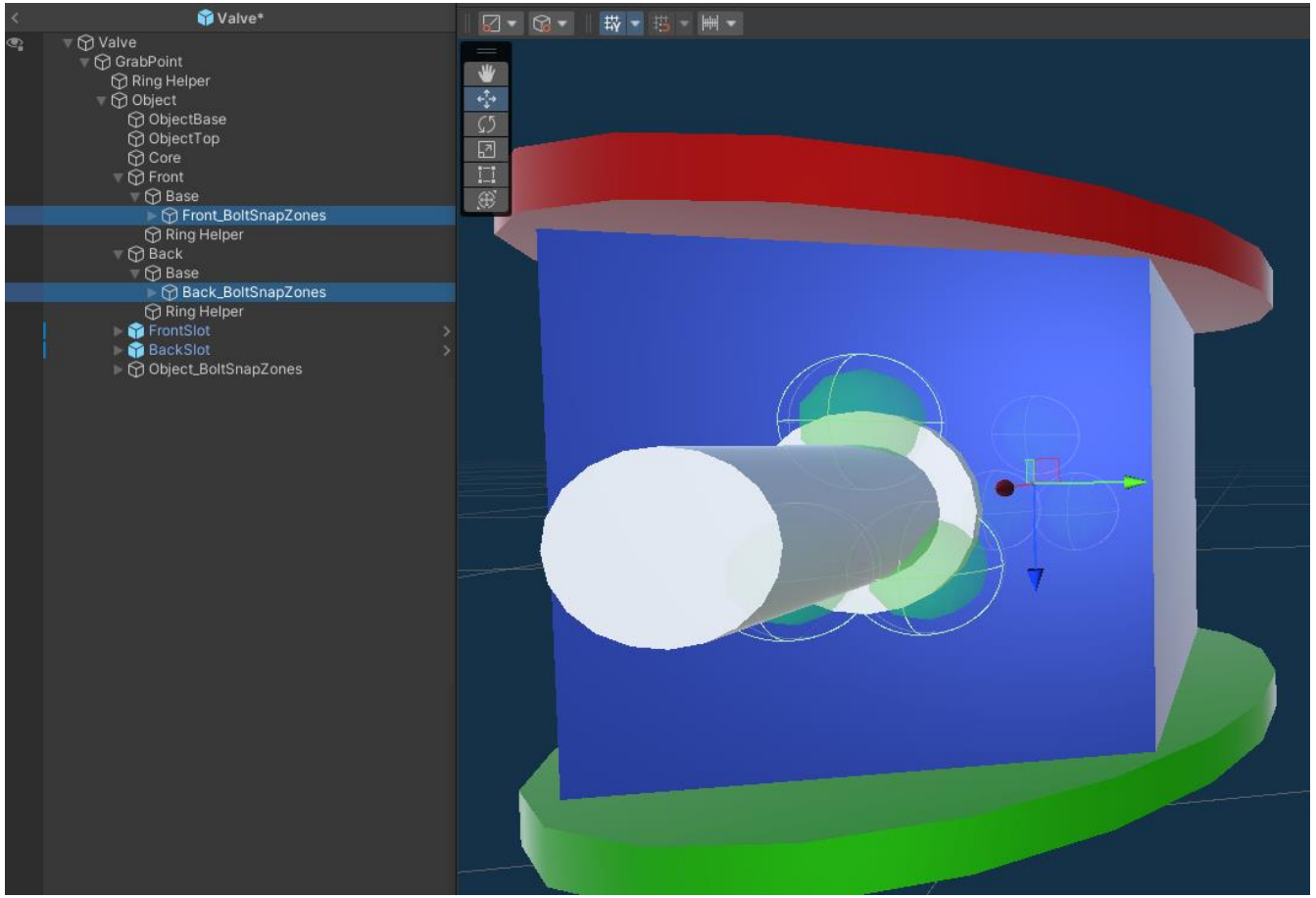
# Add AssemblySlot Script that will check if the piece is screwed

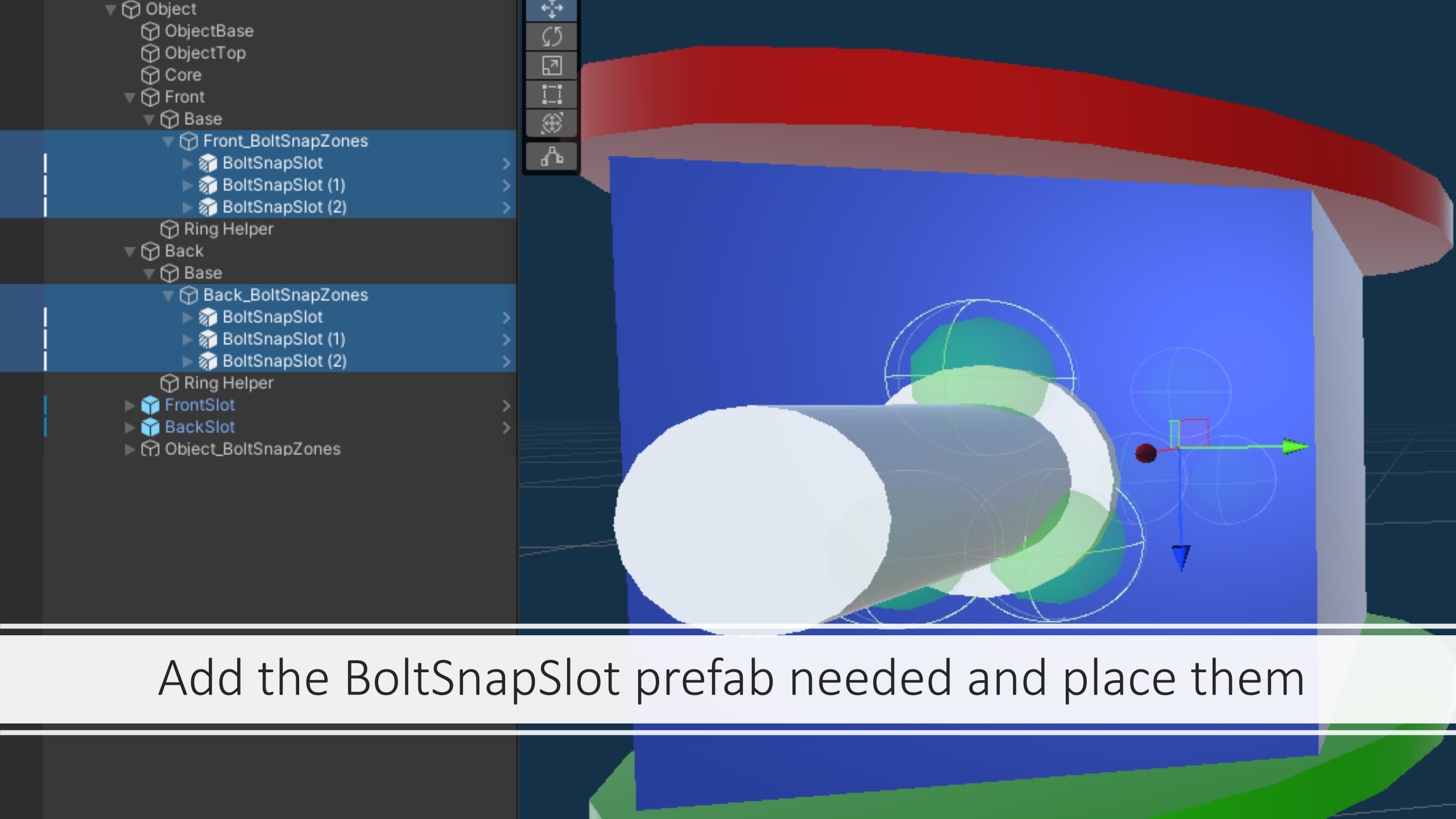




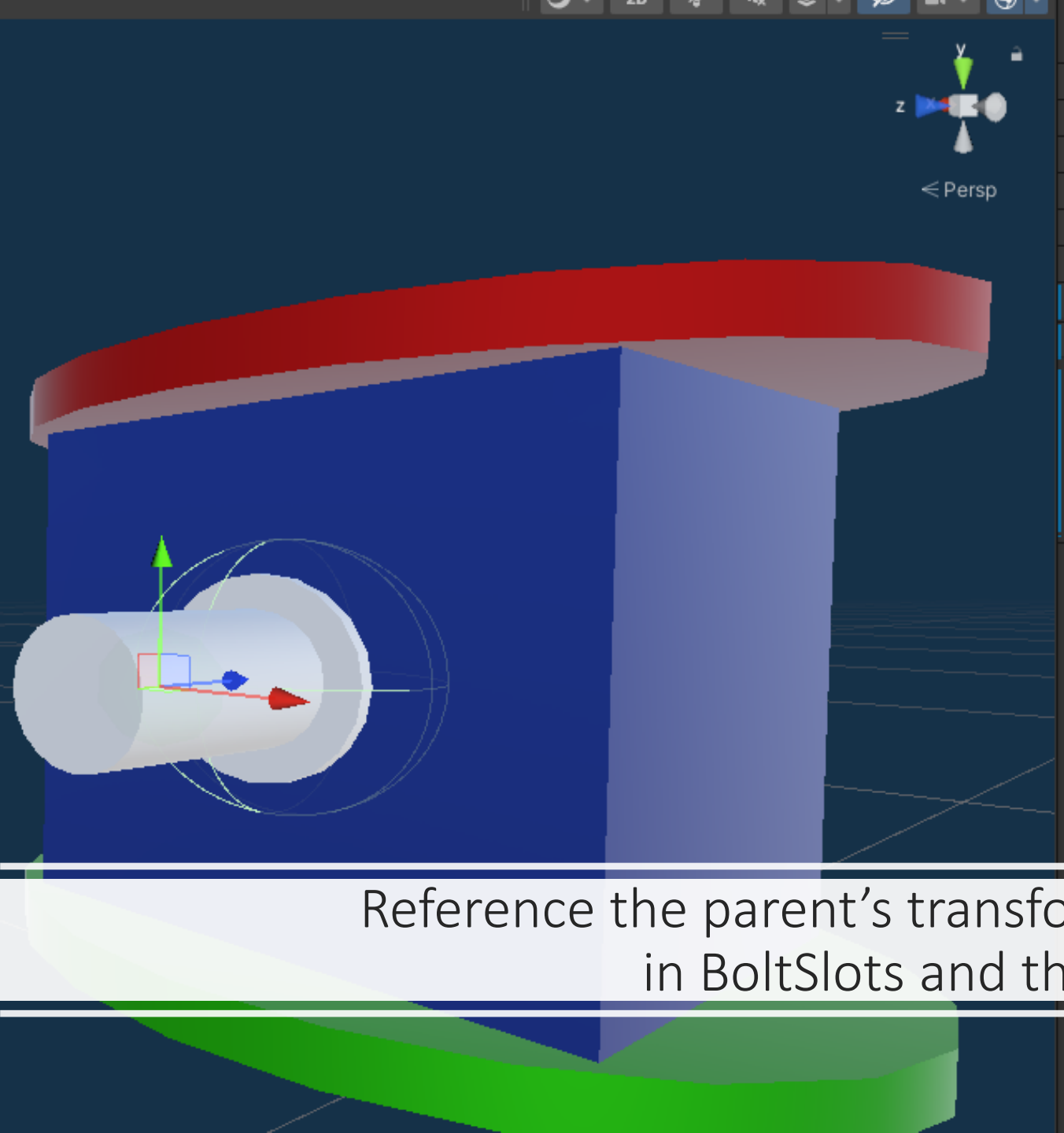

# Fill the OnSnap and OnDetach events of the SnapZone component with these ones

Add an empty child object that will contain the snap zones of the bolts and a helper






Add the BoltSnapSlot prefab needed and place them




Tag Untagged Layer Ignore Raycast

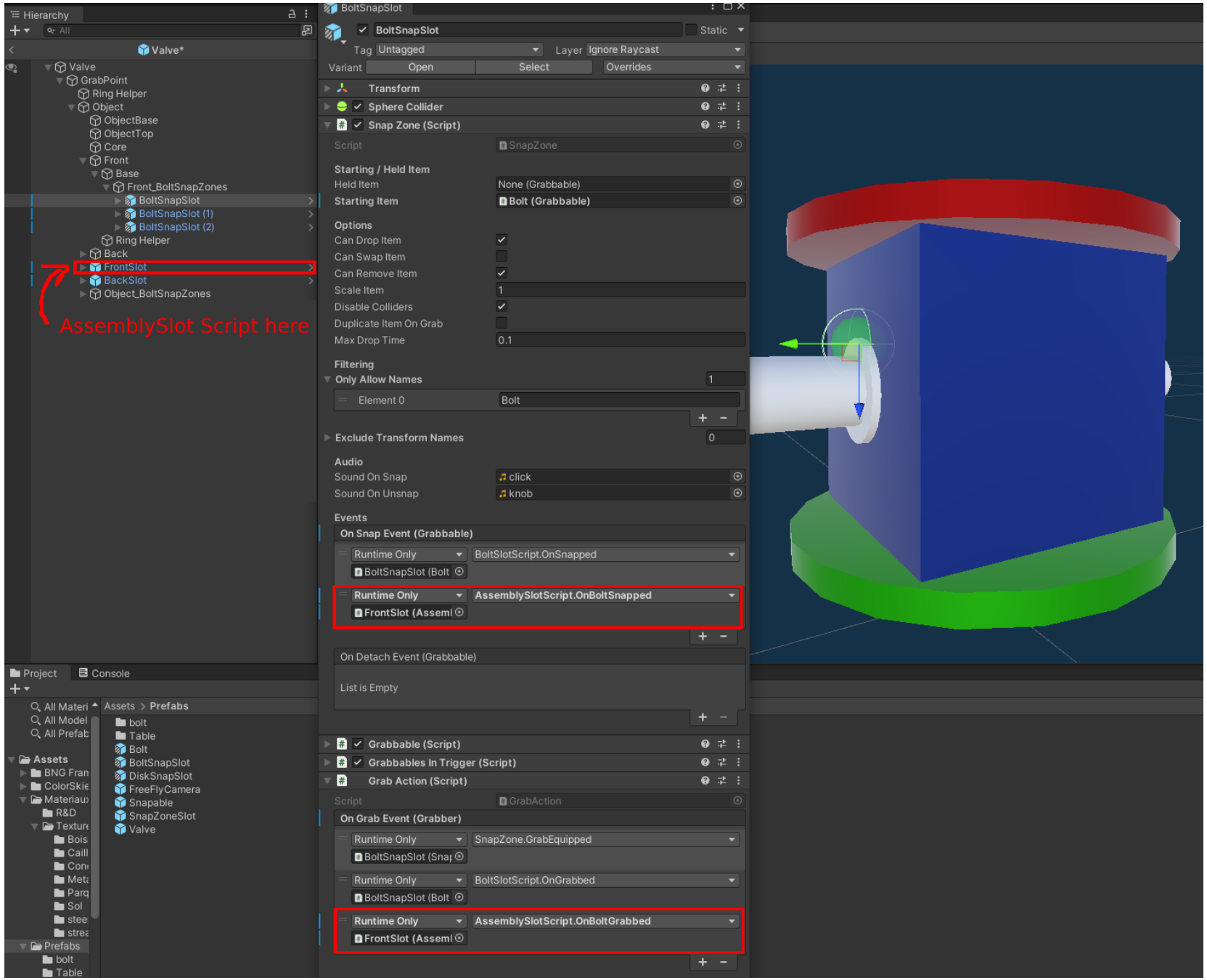
Prefab Open Select Overrides

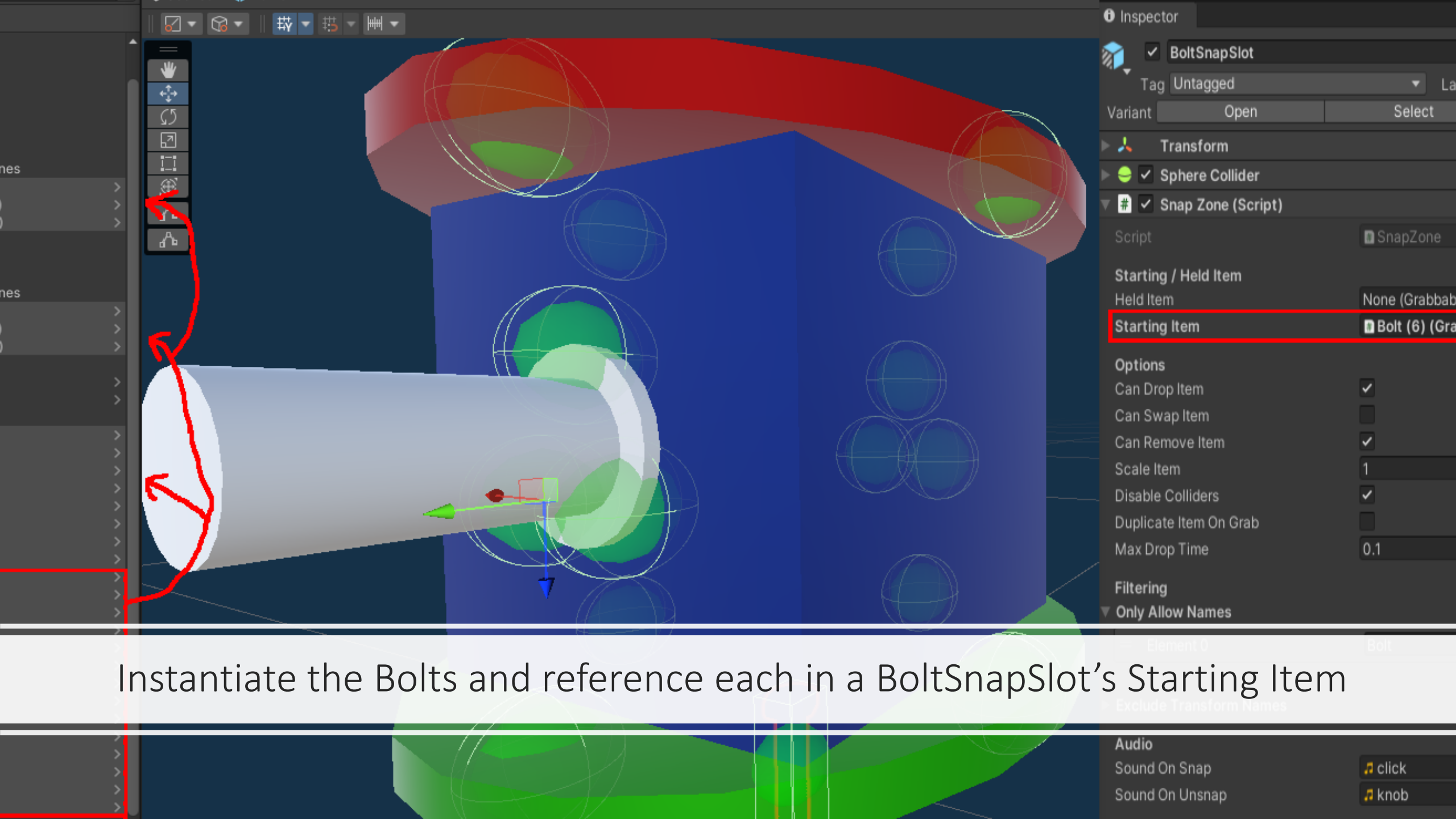
- Transform
- Sphere Collider
- Snap Zone (Script)
- Grabbable (Script)
- Grabbables In Trigger (Script)
- Grab Action (Script)
- Snap Zone Offset (Script) (Removed)
- Assembly Slot Script (Script)
  - Script: AssemblySlotScript
  - Nb Bolt Slots: 0
  - Nb Bolt In Slots: 0
  - Bolt Slots: Front_BoltSnapZones (Transform)
  - Ring Helper: Ring Helper

Add Component

Reference the parent's transform of the BoltSnapZones in BoltSlots and the RingHelper

Add the **snap** and **grab** event of the AssemblyScript in the BoltSnapSlot






Instantiate the Bolts and reference each in a BoltSnapSlot's Starting Item

# In the game scene, create a snapzone for the whole object, attention some settings are differents