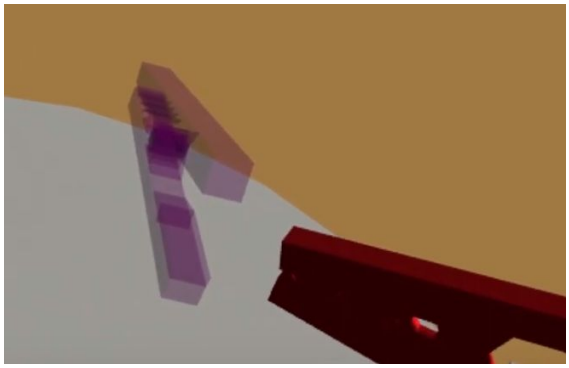
5.5 Transition, Scale, and Rotation of Snap Zones

You can manipulate how large or small the snapped object becomes when released.



Activities:

Step 1: Transition Duration

Step 2: Scale and Rotation of Snapped Objects

Length:	10 minutes
Overview:	Sometimes we want to make the dropped object shrink, grow, or rotate into a specific location after being released. This gives us complete control of how the released object looks after being dropped in the snap zone. Controlling these is necessary for making the clamps appear in the right place on the car battery.
Project Outcome:	You should have a snap zone that changes the scale and rotation of the dropped object. This is a practice snap zone, so the exact scale and rotation aren't important.
Learning Objectives:	The students will be able to: - Control the scale and rotation of the snapped object.
Prerequisite:	Previous tutorial steps (Sections 1-4)
ISTE Student Standards	6d "customize the medium for the intended audiences"
Video	https://vimeo.com/349061556

OR

Step 1: Transition Duration

1. In the Hierarchy, select the parent InteractableSnapZone. In the Inspector, modify the Transition Duration to 0.5. This means when let go, an object will take a half second to float into position.

1. **Explain** The “transition duration” is how long the object takes to get from being released to its final resting position.

Step 2: Scale and Rotation of Snapped Objects

1. To experiment with Scale and Rotation, select in the Hierarchy InteractableSnapZone > SnapDestination > DestinationLocation. Modify the Transform values in the Inspector. (These are just to see the effect, use any values you want) I used Scale: 5,5,5 Rotation: 70,70,70
2. In play testing, you'll notice that a clamp dropped in the SZ results in a HUGE clamp at a strange angle. Now we just need to control that.

2. **Extension** Provide students with a challenge position such as “half the size and completely vertical” so the snapped object will shrink and stand straight up and down.

End of Lesson

Recap

Key concepts:

- When assembling something very tiny or very large, controlling how the snapped object scales and positions itself is important so the user doesn’t have to be as precise in such situations. Example: Placing a tiny screw into a tiny hole would be annoyingly difficult, but using a larger snap zone mesh that scales the screw when dropped would still teach the user without frustrating them.

Key skills:

- Manipulating the transition duration
- Modifying the Destination Location Transform values to meet a specific goal (such as “half the size and rotated 90 degrees on the Z axis”)

Key terms:

- **Transition Duration :** How long it takes for the object to reach its position once released.