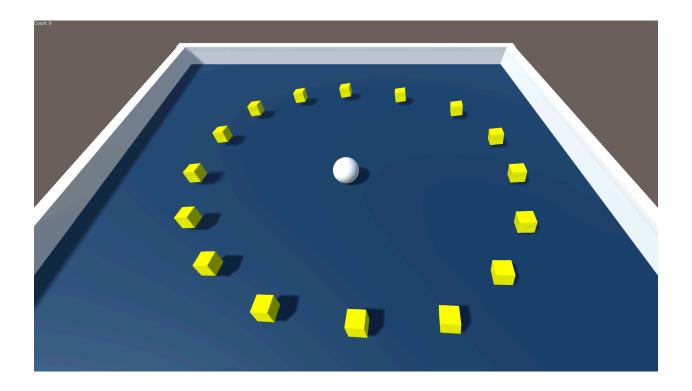
# Virtual Reality Lab 1

## Roll-a-Ball



In this lab we will create a simple Roll-a-Ball game with Unity's default assets.

### Task 1

Follow the instructions in the link below to complete the tutorial:

https://docs.microsoft.com/en-us/azure/mobile-engagement/mobile-engagement-unity-roll-aball

### Task 2

Watch the following videos:

- 1. Only the first 1 minute and 20 seconds, <a href="https://youtu.be/Xcm5H2J95il">https://youtu.be/Xcm5H2J95il</a>
- 2. From 9:30 to end, <a href="https://youtu.be/XtR29MmzuT0?t=9m30s">https://youtu.be/XtR29MmzuT0?t=9m30s</a>
- 3. Whole video, and add the UI to your game, <a href="https://youtu.be/bFSLl2cmYYo">https://youtu.be/bFSLl2cmYYo</a>

### Task 3

#### Answer the following questions:

- 1. What is the use of an empty object?
- 2. How is Physics added to the Player sphere and how do we move it?
- 3. What is the visibility of the "speed" variable in PlayerController.cs and why?
- 4. What happens when we make the Camera a child of the Player sphere and why?
- 5. How is the direction vector from Camera to Player computed?
- 6. Why is the LateUpdate() function used in CameraController.cs?
- 7. Will the tags "Pick Up" and "pick up" match in gameObject.CompareTag()?
- 8. Which event is triggered when the Player sphere enters a Collectible cube and which function catches it?
- 9. Why do we set is Kinematic to true for the Collectibles?
- 10. What is the role of a MeshRenderer? Does switching it off for a Collectible still allow it to be collected?