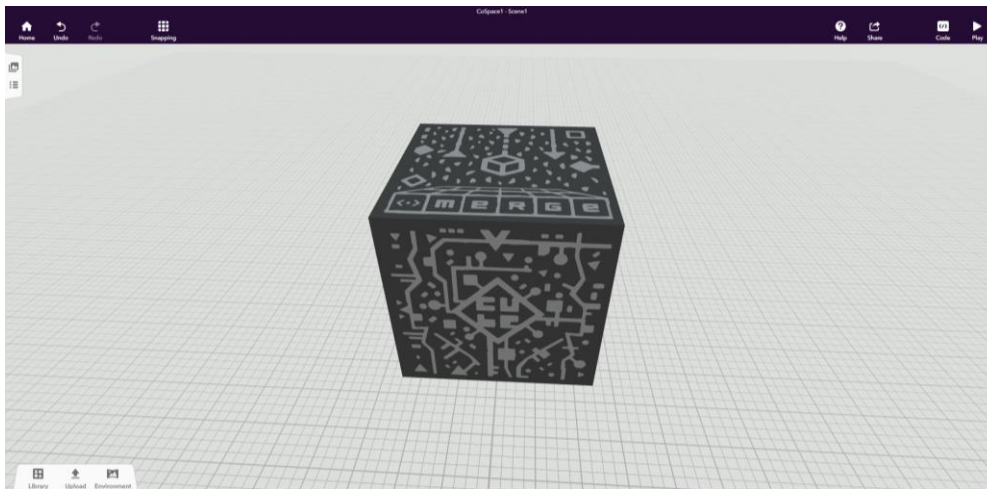


## Cospaces Edu – Building with the Merge Cube

You can build scenes, games and quizzes on, around and even inside of the Merge Cube!

### Getting Started

Create CoSpace -> Select MERGE Cube CoSpace



### Building Your Merge Cube World

#### Change Your Merge Cube Material

Right click on the Merge Cube and select Material. In our example, we are going to use the grass-looking option. Left click that option to select it. Your on-screen Merge cube should now be green.

#### Add a Building and Some Scenery

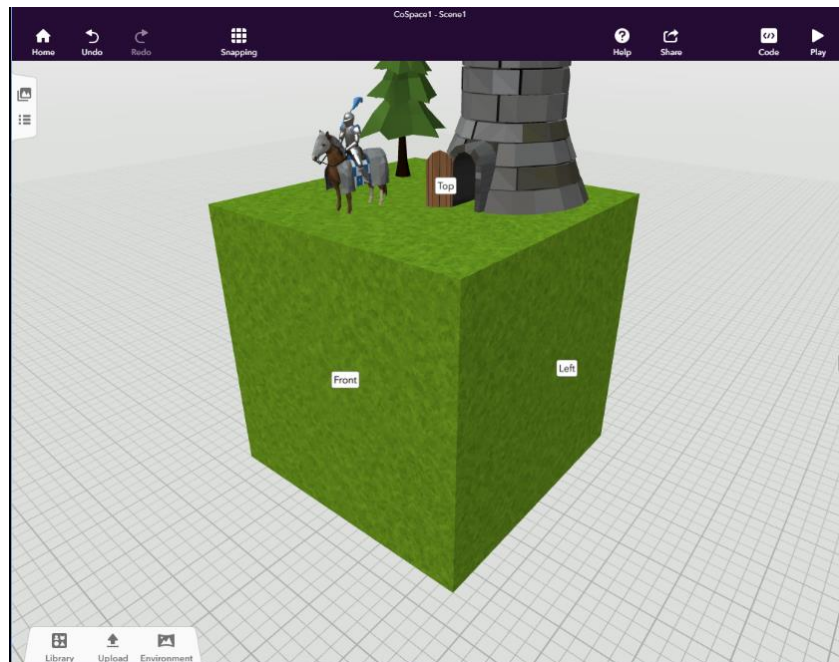
1. Under the Library menu, select Housing. Find the Medieval Tower, click and drag it into your workspace.

It will initially appear much larger than your Merge Cube. Scroll to zoom out on your workspace until you can see the item manipulation menu. Use that menu to resize your tower and relocate it onto the top of your Merge Cube. You may need to view your Merge Cube from different angles to ensure that the tower is sitting on the cube and not hovering somewhere around it.

2. Repeat this same basic process to add a tree.

## Adding Stationary People and Animals

1. Click on the Animals Menu of the Library Screen and select Horse with Armor. Scale and place the horse on the top of the Merge cube with the rest of your scene.
2. Click on the Characters Menu of the Library Screen and select Knight. Scale and place the knight on the top of the Merge cube with the rest of your scene. The location does not need to be precise, as you are going to move the knight. However, the knight does need to be scaled appropriately relative to the horse.
3. Right Click on the knight and select Animation. Choose Riding.
4. Right click on the knight again and select the Attach option. Blue spheres will appear on every location at which you can attach the knight to something. Select the blue sphere on the horse's saddle. This should move the knight into a seated position on the horse.
5. You can also right click on the horse to animate it as well if you would like.

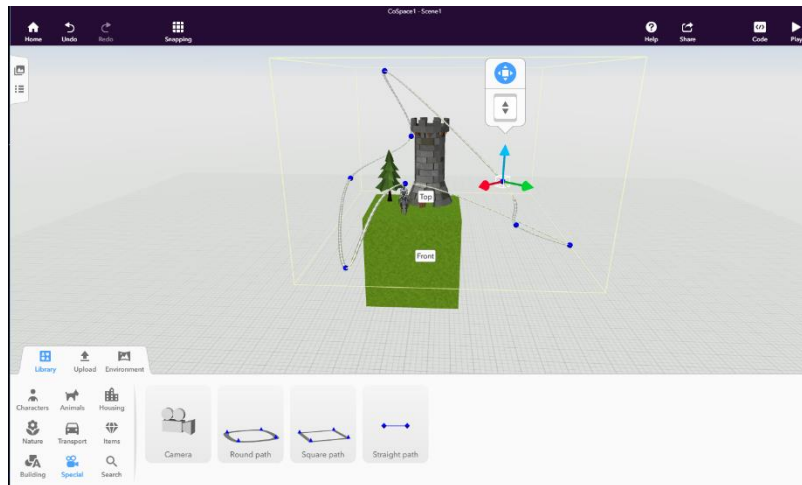


## Adding Movement Paths and Moving Objects

1. Under Library, open the Special menu, select the Round Path and drag it into your workspace.

We are creating a flight path for a dragon, so we are using the round path because it gives us 8 points with which to manipulate the path.

2. Drag the blue spheres to create your desired flight path around the Merge Cube. You will most likely need to rotate your cube as you work on this because it can be difficult to judge the depth of your path points when they are not on/near the cube.



3. Library -> Animals -> Dragon. Add the dragon to your workspace, adjusting its size down so that it can reasonable make the flight you just created. You can also change the dragon's color if you'd like.

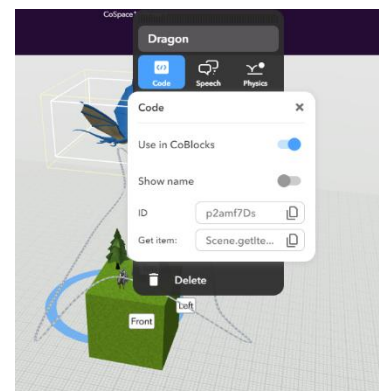
4. Right click on the dragon and change its animation to Flying.

5. Right click again and select Attach. Choose a point on the path to attach the dragon to the path.

If you click the Play icon at this point, you dragon will hover in air and flap but won't actually move along the path. In order to move the dragon along the path, you need to tell it to do so by coding.

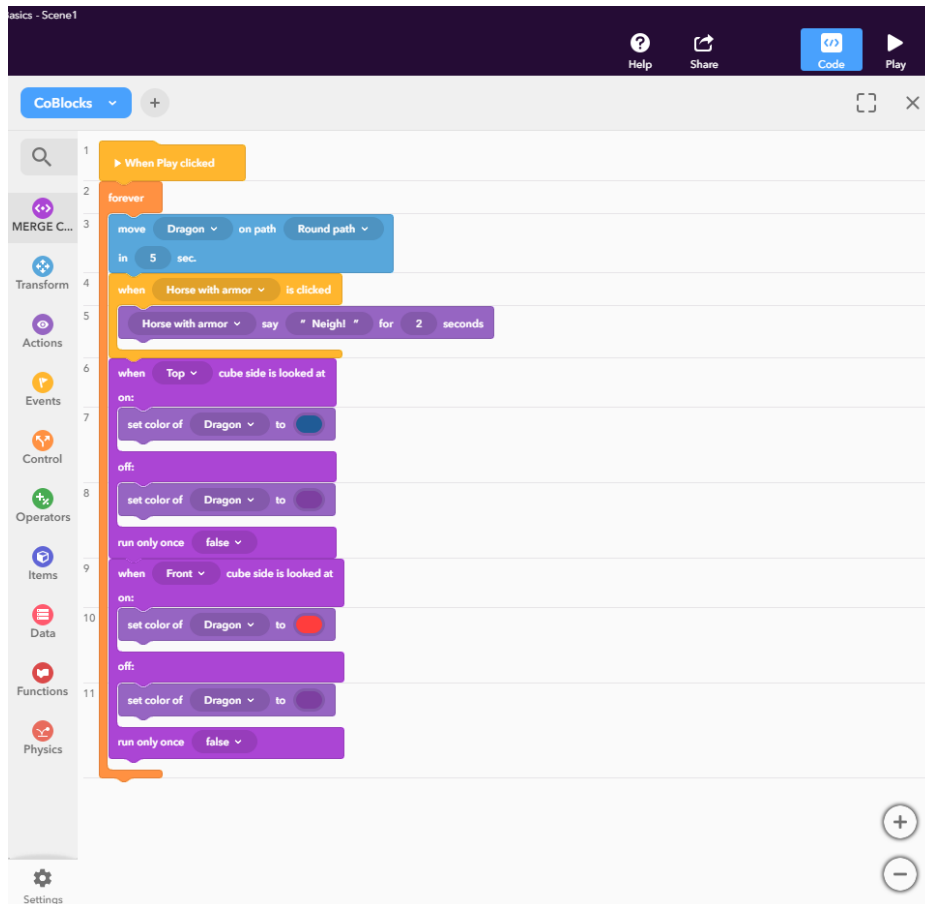
6. Right click on the dragon, select Code and toggle on the option to Use in CoBlocks.

7. Before we move into coding, right click on the horse and toggle on the option to use it in CoBlocks as well.



## Coding Your Merge Cube Space in CoBlocks

Click the Code button in the upper right-hand corner of the screen and select CoBlocks. Drag and drop the coding blocks as shown below:



As you build out this or future spaces, you can add more than one path into your scene or place more than one character/animal/item on a specific path.

## Testing Your Space Using a Physical Merge Cube

1. Pull up the CoSpaces app on a mobile device.
2. If your space is published, you can search for it in the Cospaces Gallery. If not, you'll need the direct link for the space to view it.
3. Open the project and click play.
4. Hold your Merge Cube in front of your device's camera. Your space should appear.
5. Rotate and manipulate your Merge Cube to view your space from different sides, angles, and distances.