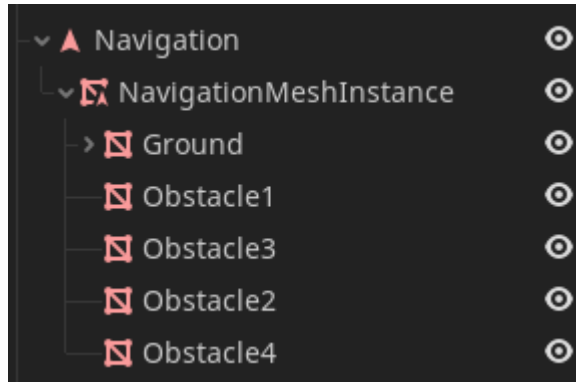


# Navigation mesh in godot

If you use 3D objects to define your terrain you are in luck! Godot provides a solution for you out of the box - enter the NavMesh.

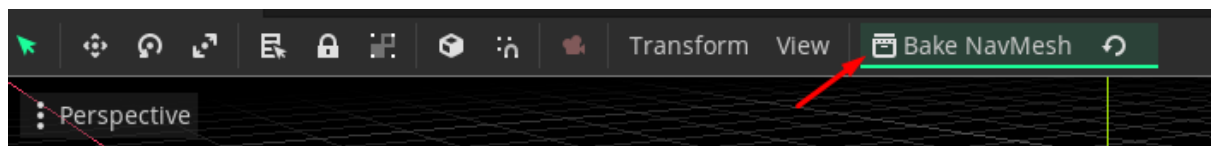
It's quite easy to create and use a navmesh.

Godot provides 2 key nodes for it: the Navigation and the NavigationMeshInstance.

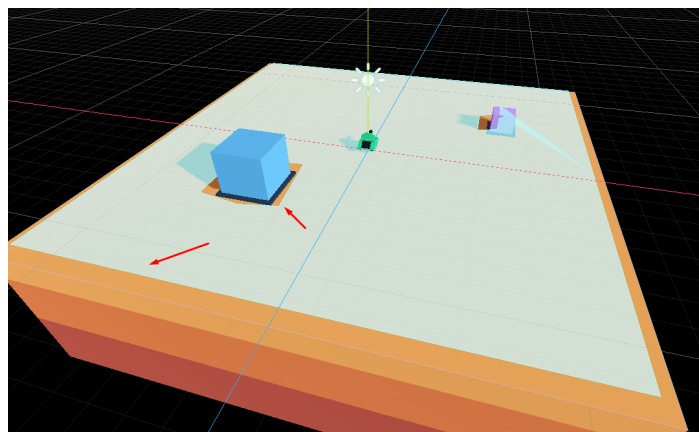


Once you have the NavigationMeshInstance parented to the Navigation node, you can include the map or the parts you want the AI to move on as children of the Nav mesh instance.

Once this step is completed, you need to select the navmesh instance and hit the bake navmesh.



Once the generation is done, it will be clearly visible in the editor view.



Congratulations! You just generated your first navmesh.

To generate a path sequence with a NavMesh, you must do the following:

- In the script of the AI you need a variable to point to the Navigation Node
- Use `nav.get_simple_path`

The code should look like this:

```
onready var nav = get_parent() # the AI needs to be parented to the Navigation  
  
func get_custom_path(target_pos):  
    var path = nav.get_simple_path(global_transform.origin, target_pos)  
    return path
```

Now, if you specify a target value that is on the navmesh, this function will return a sequence of steps that the AI can take to reach it.

Currently Godot 3 does not support dynamic objects in a navmesh, only static, baked at edit time. Godot 4 on the other hand, has this planned so keep an eye on it.

This is the final lesson from this chapter! Congrats for reaching this far! You are halfway into the course already.

In the next section we will look at sensors, or how the AI can perceive what's happening around it.