



### Grid based movement with grid sizes and borders set with LayerMask 2D

<https://youtu.be/oZCqdhTYjQQ>

Place the game Object on a grid. Add a child game Object and call it movepoint. Give the grid moving gameObject this script :

```
using System.Collections;
using System.Collections.Generic;
using UnityEngine;

public class Gridmovement : MonoBehaviour
{
    // Gridbased Movement with gridsizes and borders with LayerMask 2D//
    //by René Po1 for the Script Library -2021- RP-Interactive.nl@//

    public float moveSpeed;
    public float Horizontalgrid;
    public float Verticalgrid;
    public Transform movePoint;
    public LayerMask StopsMovement;

    void Start()
    {
        movePoint.parent = null;
    }
    void Update()
    {
        transform.position = Vector3.MoveTowards(transform.position, movePoint.position,
        moveSpeed * Time.deltaTime);
        if (Vector3.Distance(transform.position, movePoint.position) <= .05f)
        {
            if (Mathf.Abs(Input.GetAxisRaw("Horizontal")) == 1f)
            {
                if (!Physics2D.OverlapCircle(movePoint.position + new
                Vector3(Input.GetAxisRaw("Horizontal"), 0f), .2f, StopsMovement))
                {
                    movePoint.position += new Vector3(Horizontalgrid * Input.GetAxisRaw("Horizontal"),
                    0f);
                }
            }
            else
            if (Mathf.Abs(Input.GetAxisRaw("Vertical")) == 1f)
            {
                if (!Physics2D.OverlapCircle(movePoint.position + new Vector3(0f, 0.9f *
                Input.GetAxisRaw("Vertical"), 0f), .2f, StopsMovement))
                {
                    movePoint.position += new Vector3(0f, Verticalgrid * Input.GetAxisRaw("Vertical"),
                    0f);
                }
            }
        }
    }
}
```



```
}  
}
```

Drag the movepoint into the inspector's view and set the needed grid sizes and moving speed. The movement can be stopped if you place an object at the border with a layer that is called with StopsMovement. On release key the game object will always end movement in a grid. If you want diagonal movement you only need to remove the word else in the script.