

```

using System.Collections;
using System.Collections.Generic;
using UnityEngine;
[RequireComponent(typeof(MeshFilter),typeof(MeshRenderer))][//iãðãã³ðèà ià
iàÿâí³ñòù êîîîîiãî³â, ÿêùî iãîà°, ñòâîðp°
public class MeshGenerator : MonoBehaviour
{
    [SerializeField]
    private int _xSize, _ySize;
    private Vector3[] _vertices;
    private Mesh _mesh;
    // Start is called before the first frame update
    void Start()
    {
        Generate();
    }
    private void Generate()
    {
        _mesh = new Mesh();
        GetComponent<MeshFilter>().mesh = _mesh;
        _mesh.name = "Grid";

////////////////////////////////////
/////////Ããðøèéè
        _vertices = new Vector3[(_xSize + 1) * (_ySize + 1)];//iàîñèâ
ããðøèéè ðîçî³ðî³ñòp
        Vector2[] _uvs = new Vector2[_vertices.Length];//PÂ êîîðäèíàòè
        Vector4[] _tangents = new Vector4[_vertices.Length];//ââèðîð äëÿ
"èàððèè îîðèàè³é"
        Vector4 _tangent = new Vector4(1f,0f,0f,-1f);//îñè³ëüèèè îèîñè³ñòù
-1 áâî 1 äëÿ êîîððîîèÿ 3 âèîðð³
        for (int i=0,y=0;y<_ySize;y++)
        {
            for(int x=0;x<_xSize;x++,i++)
            {
                _vertices[i] = new Vector3(x, y);//ããîãðàð³ÿ èãããðàðà
òî÷îè
                _uvs[i] = new Vector2((float)x / _xSize, (float)y /
_ySize);//çî³ðp°îî òèî ià (float) äëÿ èðàóîî; òî÷îîñ³
                _tangents[i] = _tangent;

            }
        }
        _mesh.vertices = _vertices;//iãðããã°îó iãðó, ããðøèéè
        _mesh.uv = _uvs;//iãðããã°îó iãðó, PÂ êîîðäèíàòè
        _mesh.tangents = _tangents;//çàè³ãã°îî èàððîó îîðèàèü â iãð

////////////////////////////////////
/////////ððèèððèèèèè
        int[] _triangles = new int[_xSize*_ySize* 6];
        for(int ti=0,vi=0,y=0;y<_ySize;y++,vi++)
        {
            for (int x = 0; x < _xSize; x++,ti+=6,vi++)//vi-³iããèñ
ããðøèéè³ îîèèiãî çã³ëüððããðèñü ià 1 îîñò³éîî            ti-³iããèñ òðèèððèèèèè
³ çã³ëüðð°òüñÿ ià 6 â ðàèèãð 1 îðîðîiãó
            {
                _triangles[ti] = vi;
                _triangles[ti+1] = _triangles[ti+4] =vi+_xSize + 1;
                _triangles[ti+2] = _triangles[ti+3] = vi+ 1;
            }
        }
    }
}

```

```

        _triangles[ti+5] =vi+ _xSize + 2;
    }
}

_mesh.triangles = _triangles;//iãðååå°iô iãnèâè ºiääêñ³â
òðèèóóíèè³â
_mesh.RecalculateNormals();//âèðåðîâ° íîðîàè³ øëÿöîî iãðåå³ðèè
òðèèóóíèè³â ÿè³ ç°äîäî³ ç ö³°p ååðøèîp
}
private void OnDrawGizmos()//iàîàëpâàòè ñôåðè iääîîãî ðàà³ónà îî
êîððèãèðåòî
{
    if(_vertices==null)
    {
        return;
    }
    Gizmos.color = Color.red;
    for(int i=0;i<_vertices.Length;i++)
    {
        Gizmos.DrawSphere(_vertices[i], 0.2f);
    }
}
}

```