1.5.5 C# passing information to the shader

The information computed in the C# script needs to be passed to Shader in order to display the correct color of recognition Image on the model.

First, transferred the coordinates of the four corners of the recognition Image to Shader of the model.。

```
Earth.GetComponent<Renderer>().material.SetVector("_Uvpoint1", new Vector4(TopLeft_Pl_W.x, TopLeft_Pl_W.y, TopLeft_Pl_W.z, 1f));

Earth.GetComponent<Renderer>().material.SetVector("_Uvpoint2", new Vector4(BottomLeft_Pl_W.x,BottomLeft_Pl_W.y,BottomLeft_Pl_W.z, 1f));

Earth.GetComponent<Renderer>().material.SetVector("_Uvpoint3", new Vector4(TopRight_Pl_W.x, TopRight_Pl_W.y, TopRight_Pl_W.z, 1f));

Earth.GetComponent<Renderer>().material.SetVector("_Uvpoint4", new Vector4(BottomRight_Pl_W.x, BottomRight_Pl_W.y, BottomRight_Pl_W.z, 1f));
```

In addition to identifying the coordinates of the four corners of the image, the information to be transmitted includes the matrix relationship between the camera and the object in the screenshot. The code to determine the matrix relationship is as follows.

```
Matrix4x4 P = GL.GetGPUProjectionMatrix(Camera.main.projectionMatrix, false);
Matrix4x4 V = Camera.main.worldToCameraMatrix;
Matrix4x4 VP = P * V;
Earth.GetComponent<Renderer>().material.SetMatrix("_VP", VP);
Frame.GetComponent<Renderer>().material.SetMatrix("_VP", VP);
```