**Getting Started - Chapter 3 - Car Animation**

**@@启程-第三章-车辆动画@@**

**Animate the Car in the Village**

**@@在村庄场景中为车辆添加动画@@**

In a similar way to how we animated the wheels we now animate the car to travel a straight line over 5 secs., stop for 2 secs. and then repeat.

@@使用和为轮子添加动画的方法相似的方法为小车添加动画，使小车先沿直线行驶5秒，停顿两秒，然后重复。@@

const animCar = new BABYLON.Animation("carAnimation", "position.x", 30, BABYLON.Animation.ANIMATIONTYPE\_FLOAT, BABYLON.Animation.ANIMATIONLOOPMODE\_CYCLE);

const carKeys = [];

carKeys.push({

frame: 0,

value: -4

});

carKeys.push({

frame: 150,

value: 4

});

carKeys.push({

frame: 210,

value: 4

});

animCar.setKeys(carKeys);

car.animations = [];

car.animations.push(animCar);

scene.beginAnimation(car, 0, 210, true);

Animated the Car Forward

给小车添加向前运动的动画

https://playground.babylonjs.com/#KDPAQ9#16

After adjusting the position of the car and its route so that it travels past the village houses we have

@@调整完车辆的位置和线路之后，我们可以使它在我们已有的村落房屋间穿行。@@

Add the Car to the Village

把小车添加到村落场景

https://playground.babylonjs.com/#KDPAQ9#17

In this case we have built the car. Let's now look at a model character that we can import along with its built-in animation.

@@在这个例子里我们已经建立了小车对象的动画。现在让我们看看如何导入一个带有内建动画的模型角色。@@

const createScene = function () {

    const scene = new BABYLON.Scene(engine);

    const camera = new BABYLON.ArcRotateCamera("camera", -Math.PI / 2, Math.PI / 2.5, 15, new BABYLON.Vector3(0, 0, 0));

    camera.attachControl(canvas, true);

    const light = new BABYLON.HemisphericLight("light", new BABYLON.Vector3(1, 1, 0));

    BABYLON.SceneLoader.ImportMeshAsync("", "https://assets.babylonjs.com/meshes/", "village.glb");

    BABYLON.SceneLoader.ImportMeshAsync("", "https://assets.babylonjs.com/meshes/", "car.glb").then(() => {

        const car = scene.getMeshByName("car");

        car.rotation = new BABYLON.Vector3(Math.PI / 2, 0, -Math.PI / 2);

        car.position.y = 0.16;

        car.position.x = -3;

        car.position.z = 8;

        const animCar = new BABYLON.Animation("carAnimation", "position.z", 30, BABYLON.Animation.ANIMATIONTYPE\_FLOAT, BABYLON.Animation.ANIMATIONLOOPMODE\_CYCLE);

        const carKeys = [];

        carKeys.push({

            frame: 0,

            value: 8

        });

        carKeys.push({

            frame: 150,

            value: -7

        });

        carKeys.push({

            frame: 200,

            value: -7

        });

        animCar.setKeys(carKeys);

        car.animations = [];

        car.animations.push(animCar);

        scene.beginAnimation(car, 0, 200, true);

        //wheel animation

        const wheelRB = scene.getMeshByName("wheelRB");

        const wheelRF = scene.getMeshByName("wheelRF");

        const wheelLB = scene.getMeshByName("wheelLB");

        const wheelLF = scene.getMeshByName("wheelLF");

        scene.beginAnimation(wheelRB, 0, 30, true);

        scene.beginAnimation(wheelRF, 0, 30, true);

        scene.beginAnimation(wheelLB, 0, 30, true);

        scene.beginAnimation(wheelLF, 0, 30, true);

    });

    return scene;

};