

Project A Report

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tank battle

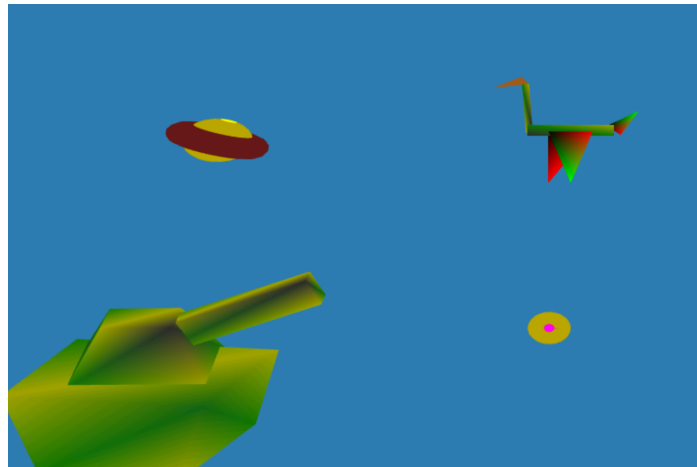
goals:

1. The bird are composed of several "jointed" parts, including 2D and 3D objects, like that robot arm.
2. Only when the button "BirdOn" is clicked can the bird be dragged by mouse.
3. The tank are composed of three 3D parts, and upper part and cannon can spin separately.
4. The tank can move horizontally, which can be controlled by two methods: keyboard and the button "TankrunStop".
5. The tank can launch cannon balls continuously, which can happen when the mouse is clicked.
6. The cannon balls which are launched have their own direction, which is determined by the click position.
7. The color of canvas can change when the window size varies.
8. whether the bird is still or not can be controlled by the button "BirdrunStop".

Result:

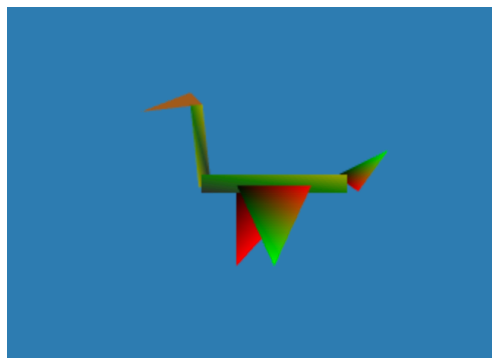
1. First of all, we can see the tank object.
 - (1) The tank is composed by three 3D parts, each of which can move separately. The upper parts can spin horizontally, and the cannon can spin horizontally and vertically. And the lower part can move horizontally, which can be controlled by the button "tankRunStop", as well as the keyboard: when you type "<=", it move left, and right when typing "=>".
 - (2) The tank can launch cannon ball, which only happens when you click the button "tankwith" and turn it on. Then, you can click the mouse, and hold it, then you can see a ball is shoot. This process can repeated

as long you hold the mouse down. More interestingly, the track and direction of balls can be determined by your clicking position, which means the ball would head for the location you click.



2. Next, we can see the bird:

- (1) The bird is composed of several jointed parts, like that robot arm. Each of these parts are connected but spin separately.



- (2) The bird can be dragged by the mouse, as long as you turn it on by clicking the “birdswitch”.
- (3) Whether the bird is moving or not depends on your choice, which means when you click the button “birdRunStop”, the bird will stop move and become still, and it will recover if you click the button again.

3. Furthermore, the UFO.

This UFO are composed of one sphere and one torus, it can spin. And we you drag your mouse within the canvas, it's perspective can be changed by your action, which means you can see it's back face, lower face, etc.



4. The canvas color.

The canvas's color can be changed when you change the window size.

