

24780 HW5

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My program allows users to adjust the angle of the cannon and shoot ball when pressing space. When the ball hit the apple stem, the apple will fall down.

In the program, I used `GL_QUADS` and `GL_TRIANGLE_FAN` to draw my apple tree and used `GL_LINES` to draw the cannon. Also, I gave my tree a color gradation and gave my cannon line stipple. When the ball or apple is in the air, I used numerical integration of Euler's method to plan their speed and path. Moreover, I used state transition to control the state of apple and ball, and used "math.h" to calculation the sin and cos value in the program. The skills mentioned above fulfilled the requirement well.