15112 Deliverable #1: Siyu Chen. . . AndrewID: siyuchen

ideas of 15112 term project.

Project Proposal:

Project title: Motion control Flying Humster

In my project, what I want to do is to combine motion recognition with a game named flying hamster. I want to use OpenCV to track the object, and record the motion of it then use this information to control the hamster flying in the screen. The flying hamster game is very interesting in which we can make the hamster flying over the whole screen. Fight with the enemies and to rescue it’s friend.

The first challenge is to use a blue dot to control the player’s movement. I will use OopenCV to track the movement of it. Then I will make a game that is controlled by this motion tracking. The player in the game will move according to the position of the tracked object. The first temp is to use color sensitive method to track the object. The algorithm uses color moment analysis.

The game will be written in Tkinter, where I will develop different kinds of enemies and different level of difficulty according to the score the player get. At the end of one level, we will reach another Boss level, where we need to fight with the boss with AI. In addition we will add music feature on that. The whole game should have a beautiful looking, with many cute pictures and sound played every level.

What I want to use in my project is OpenCV, pyaudio, webcame, numpy and Tkinter, in OpenCV, we will recognize the motion of the player, the

Webcame is used to get signal used to control the game from the real-time video. And Tkinter will help to develop small games. This is a platform of motion control playing game.