

Exercise 3 (week 3, October 11st)

The tasks of exercise are:

1. To end tasks of Exercise 2.
2. To detect the car's collision with oranges, butters and road limits (the cheerios) by using surrounding boxes aligned with the axis (axis aligned bounding boxes - AABB). When the car reaches the limits of the track (collision with Cheerios) or a butter, it should stop, even if the user continues to press the button. When collided by the car, the butters or cheerios move slightly. If the car is hit by an orange, the player loses the race and the car should be placed at the start line.
3. To apply simultaneously at least two textures to the table. These textures should react to the lighting. Take the example of the **multitexturing** demo whose files are attached to this exercise. To run this demo, use the AVT Template and replace the lightDemo.cpp file by multiTexDemo.cpp file. Add both shaders (texture_demo.vert and texture_demo.frag) to the SHADERS directory and place the image maps files (stone.tga, checker.png and lightwood.tga) in the Project directory. By pressing the key 'l' you enable the spotlight effect.