Computer Graphics exam project topics

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1 - Drone Simulator
Design a simulator of a drone that flies around a 3D landscape. The point of view has to be in third person. Let notice that the drone cannot fly underneath the terrain

2 - Monster Truck Simulator
Design a simulator of a Monster Truck (or a car) that navigates on a non-flat environment. The point of view has to be in third person and you have to pay attention that the 3D model of the Monster Truck has to be aligned with the terrain

3 - Museum
Design of a virtual tour inside of a museum with paintings and sculptures in first person. The subject (the camera) can navigate throughout the museum; whenever it encounters a painting and a sculpture, the user is allowed to pop-up a card with information about the piece of art.

4 - Dungeon
Design a first-person dungeon where the user can navigate the map

5 - Air Hockey:
Design an Air Hockey game where two users can move the paddles. There is no explicit need to implement a game logic to remember the points but it is welcomed. The user can change the point of view among the two players or the center of the table. You have to implement the physics of the puck paying attention to the collisions. You can implement simple "physics" rules (i.e., the puck and the paddles cannot go outside the playing table, the velocity is constant) and let notice that puck and paddles are essentially circles with constant radius.

6 - Missile Simulator
Design a simulator of a point-to-point missile in a 3D landscape. The point of view must be in third-person. The missile must follow a parabolic-like trajectory and its orientation must be interpolated accordingly.

7 - Boat Runner
Design a game in which a boat keeps going forward (third-person view) and obstacles (rocks) appear in its path. The player must avoid the obstacles by using the keyboard to move the boat.

8 - Hungry Bird simulator
Design a game in which you have to throw very hungry birds to their food.

9 - Pinball
Design a pinball game. You can approximate the paddles as a boxes. You have to implement the physics of the ball paying attention to the collisions. You can implement simple "physics" rules (i.e., the ball and the paddles cannot go outside the playing table, the velocity is constant).

10 - Tangram
You have to design a tangram game in which the player must reproduce a target composition. You can select each available piece, and it must be possible to rotate (45° at a time), move, and perform symmetry operations on pieces with the keyboard.

Assets plus some extra details will be published on WeBeep. However, these topics are mainly starting point: your contribution in creating a personal interpretation of the idea is required.