**Computer Graphics exam project descriptions attachment: project specifications**

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Please note that, besides the project specifications given here, **each work will be characterized by a different shading space** (either world, camera or object space).

1. Birb hunt: explore the environment until you find the hidden birb. First-person camera, it must be possible to move around the environment with keyboard keys and finish the game once you get close enough to the birb
    a. Optional (improved evaluation): use raycast to select the birb and win the game

2. Showcase: imagine a shop window in which there are several objects on pedestals. You will have to present several pedestals with objects showing off different rendering techniques. It must be possible to select (with the keyboard) one of the pedestals to inspect it more closely.
    a. Optional (improved evaluation): use raycast to select the pedestal to inspect

3. Rubik's cube: as the name implies, it must be possible to interact with a Rubik's cube to solve it.

4. Flying rings chaser: an endless runner (or flyer..) in which a spaceship will have to pass through the rings in its path to get more points. You lose if you hit the terrain. First-person camera.

5. Arkanoid: implement the Arkanoid game with the paddle, the ball, and the hovering blocks.

6. Whack-a-mole: smash the little buggers for more points. You can use the keyboard to decide which hole in the board to hit.
    a. Optional (improved evaluation): use raycast to select the hole to smash.

7. Tower of Hanoi: tower of Hanoi game. It must be possible to move circles from one point to the other (keyboard) and check whether the move is allowed.
    a. Optional (improved evaluation): use mouse to move the rings

8. 3D Connect 4: like connect 4, but with a 3D board. You can select the position in which to insert a piece in the 3D board with the keyboard.

9. Fortune wheel: a fortune wheel that can be spinned and does something different depending on where it stops (e.g., playing sounds, moving, etc etc…)

10. Platformer maker: the project consists in implementing a level builder with the available blocks. The levels must then be playable in a platformer-style fashion (e.g., Super Mario).