TÉCNICO LISBOA

AVT 2025/2026

Assignment 2

The evaluation of this assignment's tasks as well as the tasks of Exercise 4 and Exercise 5 will be held in the week of October 22th, and corresponds to 60% of the total Assignment grades. The required tasks are listed below; however, it is expected that each group enriches the game with other elements and features to make it more attractive.
A technical report and a trailer video must be provided with the source code. The 10% of the Assignment 2 grade will account for the report and video delivered. Remember that the Laboratory component corresponds to 80% of the course final grade.

Tasks

The tasks of Exercises 4 and 5 will be evaluated with **13 points**: HUD and Pause worth 3.5 points, OBJ objects support worth 1.5 points, rearview camera worth 3 points, billboard behavior worth 1.5 points, particle system worth 2 points and the 2D Lens flare effect worth 1.5 points.

The tasks of this assignment are:

- to implement the planar shadows **(2 points)** and planar reflections **(1.5 points)** by using the blending and stencil mechanisms as explained in the theoretical class.
- Bump-mapping (**1 point**)
- Skybox (**1.5 points**) and Environment cube mapping (**1 point**)

Regarding the above tasks, the students can base their development on the attached AVT_Planar_Reflections_Shadows.zip and AVT_AdvancedTexturing.zip demo files.

Notes

1. The Groups should upload their source files to the Fenix System at the end of their evaluation.

2. The Groups should deliver also through Fenix, until October 24th, a **technical report of 6 pages** with a link to download a **trailer** video. The report **does not** have to explain the techniques. It should rather inform, for each feature of the game, which techniques were used and how, illustrating with drawings and/or images.
3. The **total grade** of the Laboratory component will be the sum of Assignment 1 with Assignment 2. The total grade of Assignment 2 is composed by: code (90%); technical report (5%); and trailer video (5%)**.**