Land of Pursuit

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For Windows and macOS
Rating: E10+

Game Story Summary

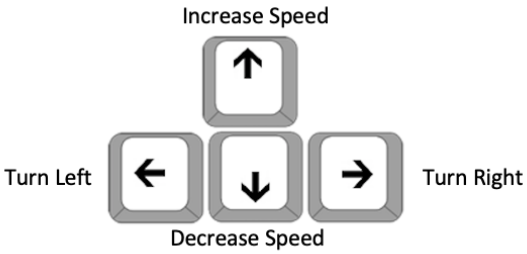
After an operation which did not go according to plan, you find yourself in a car trying to escape from the terrorists, who are chasing you by a helicopter throwing missiles. Your only concern is how to survive.

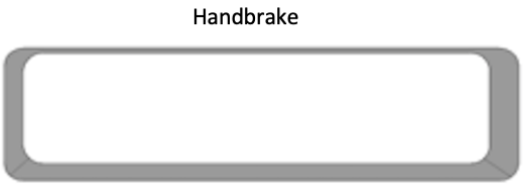
Game Flow

Land of Pursuit: is a third person (you can change it to 1st person) action-adventure-survival-racing game where you find yourself in a supercar trying to escape from the terrorists where you are chased in a secluded village . The enemy is trying to kill you by throwing missiles from a helicopter. It is a matter of life and death and that is why you must run fast with no hesitation. The longer you stay alive, the more points you earn. Along the way you will find in front of you various categories of PowerUps where they can increase your health (Green PowerUp), decrease your health (Red PowerUp), make you invulnerable for a few seconds (Blue PowerUp) as well as give you points (Gold PowerUp). As time goes on and you stay alive, you level up. Thus, the missiles fired by your enemies will do more damage to you.

Character and Controls

The player controls the car with the following buttons.





Game World

The game takes place in a secluded village that is shown in the photos below.





Interface

1. **Health:** shows the current health of the player.
2. **Time:** shows the time since the round started.
3. **Points:** shows the number of points that the player has collected.
4. **Level:** shows the current level.
5. **Points Multiplier and Missile Damage:** shows the points multiplier and the damage of missiles on current level.
6. **Rear view Camera:** shows a rear view from the player's car.
7. **Top view Camera:** shows a top view that follows the player’s car.
8. **Tachometer:** shows vehicles speed, RPMs, and gear.
9. **Nitro:** shows the available amount of nitro at the current time.

1. **Play Button:** Starts the game
2. **Quit Button:** Quit from the game
3. **Controls:** Show game's controls

1. **Time:** total survival time.
2. **Points:** total points collected.
3. **Final Score:** sum of total survival time and total points.
4. **Highscore:** highscore
5. **Play Again Button:** restart the game.
6. **Quit Button:** quit from the game

PowerUps

As player drives around the track, will find different powerups which spawn in the map. In every run the player could face a different scenario as the placement of powerups is random. The available powerups and their properties are shown below.

Green Powerup: Increases player's health by 20%**.**

Red Powerup: Lowers player's health by 10%.

Blue Powerup: Enables a field around the player and makes him invulnerable for a few seconds.

Gold Powerup: Gives points to the player.

Enemies

Your enemy is the terrorists on the helicopter. They follow you wherever you go and constantly try to kill you by firing you with missiles.

Technical

In this section is described how we have implemented different features and mechanics of our game.

Environment

To create the environment, we have first created a terrain. Next, we have sculpted and painted the terrain. Finally, we have added trees using various brushes.

Track

In order to create the track, we had to make a road and a fence. To create the road we have used the asset “EasyRoads3D” from the Unity Store that allows us to click with the mouse in various positions we want on our terrain and when we are finished, the asset creates the road and adapts it in the terrain. In a similar way for the fence, we have used the asset “Fence Layout Tool”.

Helicopter AI

In order to manage the helicopter to follow the player the whole time we had to create some AI. We have achieved that with NavMesh. We have baked the road and we have defined the helicopter as a NavMesh Agent. Finally, we have set his target to be the player.

Missiles

The missile that we have used was downloaded from Unity Store. We have combined the missile with an explosion effect which activates once the missile collides with something. Then, we have used “Coroutines” in combination with the “WaitForSeconds” function to fire a missile every x seconds. Finally, in order for the missile to be able to follow the player, who is the target, we have used the ”Vector3.MoveTowards” function.

Player’s Car

The car that we have used was downloaded from Unity Store. It was a police car but we have changed the design a little.This asset, it was combined with a car controller script that allows us to drive the car. Finally, this car had extra cameras with different angles, UI elements in order to see the speed that the player is going, the nitro capacity etc.

Explosion

In order to make the explosion when the player dies or a missile is fired, we had to create an explosion effect. This was done by following the step by step instructions of the Youtube channel “Brackeys" in the video “GRENADE / BOMB in Unity (Tutorial)!”.

PowerUps

Firstly, the visual part of the powerups is based on a free asset package downloaded from Unity Store. Second, concerning the placement of the powerups in the map, we have predefined areas in the track that the powerups can spawn. As the player is driving on the track, any time he collects a powerup the next area of powerups is activated. When it's time to initialize powerups and place them in the track the process is random, as there are four available powerups and any combination of them can happen, something that makes the game dynamic.

MiniMap

In order to create a MiniMap we have needed a second camera that can render the scene from a top-down view. We have changed the Projection from Perspective to Orthographic and we have placed it in the position we have wanted. We have also made it a child of our player to follow him. Finally, to make this camera part of the UI, we created a RAW image, we have got everything that the camera renders and put it into a texture and display it on the RAW image.

Behind camera

In order to create a Behind camera, we have needed another camera that can render the scene from the front of the car to the rear view of the car. We have positioned the camera in the position we wanted and we make the camera a child of the player to follow him. Finally, to make this camera part of the UI, we created a RAW image, we have got everything that the camera renders and put it into a texture and display it on the RAW image.

Main Camera

The Main Camera is using a script that the asset of the player's car had, in order to show the game in a third and first person view.

Health Bar

In order to show the player's remaining health, we had to create a health bar. This was done by following the step by step instructions of the Youtube channel "Brackeys" in the video "How to make a HEALTH BAR in Unity!".

Score System

The main goal of the player is to survive as much time and collect as many points as possible. Points can be collected from gold powerups that are randomly found on the track. Likewise, the number of points collected each time is multiplied by the level at the current time. The final score is calculated by adding the survival time and the sum of points that the player has collected. Finally, we have used the "PlayerPrefs" class to store the highscores.

Sounds

We have used different sounds inside the game in various applications. Some sounds are contained in downloaded assets while some others were downloaded individually.

Game Manager

We have created a game manager that is responsible to end the game when the player's health is zero (or below) and then activates the End Screen to show the performance of the player and the play again option.