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1. Game overview
   1. Game Concept

Billy Rush is a top-down 2D driving game for PC. The concept of the game is to drive around the countryside and collect beer cans while avoid getting abducted by the UFO. The idea is to collect as many beer cans as possible and get to the finish line before time runs out. There are some obstacles that require boost to get through them or slow the player’s progress in the game.

* 1. Game Genre

Driving game.

* 1. Target Audience

The game is targeted to young adults who enjoy driving games with a light atmosphere. The timer, obstacles and enemy bring challenges to the player making the game more interesting.

* 1. Look and Feel

The game reflects an easy-going life at the countryside that has been interrupted by UFOs. The character drives thru the bumpy and muddy country roads, trying to get safe before the time runs out. The idea is to pick up as many beer cans as possible and avoid obstacles.

* 1. The Story

Story is a following from the start to finish. The main protagonist is a nameless person who is the player.

1st level’s story snippet. A certain “Bob” has dropped all the beer cans in the start of the game during his trip to your house. Your character decides to get in the car with another unnamed character. This other character acts as a narrator for some of the story parts. You then proceed to complete the level.

2nd level’s story snippet. The other unnamed character wants to head up the mountain, earlier mentioned Bob mentioned something about a UFO. You then proceed to drive up the mountain and complete the level.

3rd level’s story snippet. Upon arriving on top of the mountain you run into the UFO!. You then proceed to drive away and the new mechanic of the ufo is added to the game. You complete the level.

4th level’s story snippet. You’re now close to home, but it’s dark and the UFO is still on your tail. Regardless of this the narrator wishes to collect the beer cans. new mechanic added of darkness. You complete the level.

Game’s ending. After completing the 4 levels you get 3 different messages. First being a general message that all players get. You try to ram the grounded UFO, believing that you will hailed as heroes. Next two messages are based on how many beer you collected during levels 1, 2, 3 and 4. Not including tutorial.

Good ending, high amount of beer collected.

The “good” ending is that you wake up in the morning in your bed. There is message left by Bob. Saying that you nearly rammed the sheriff’s car. here it is implied the first time that the UFO was all along a the sheriff’s car. You missed the sheriff’s car and hit the postbox. You were found in the car blacked out. Probably from the beer. You are let off with a warning by the sheriff.

Bad ending, low amount of beer collected

The “bad” ending is that you wake up in the morning in a cell. After a quick thought that you have been kidnapped by the aliens, the sheriff walks in. He says you rammed his car and rambled about some aliens. He continues that you will spend a long time behind the bars. Then the story implies that drinking more beer would’ve made you blackout quicker meaning you wouldn’t had the chance to ram the sheriff’s car.

1. Gameplay and Mechanics
   1. Game Progression

The game starts at the country roads. The player must drive around the map and get to the finish line before the time runs out. The aim is to collect as many beer cans as possible to get points while avoiding obstacles such as, mud puddles, cows and hay bales. It is possible to collect fuel barrels to get boost and drive thru the hay bales. The player can choose to drive a bit easier route, but it will have less points to collect.

There are few ways to lose the game. If the player drives off the cliff, over a cow or boosts into a wall, the player dies. It is also possible to get abducted by the UFO. The player must get to the finish line before the time runs out.

* 1. Game World and Maps

Tutorial map is a quick and simple map. It introduces the player to the game’s controls, obstacles and goals. The map is set up to be easy to beat, but the player still needs to pay attention to driving. UFO is not in this map.

Map 1 is a long map with many obstacles. The map has a few interesting route choices. The player can choose, for example between an easier route or a route with more obstacles and a fuel pickup. The map is mostly wide and easy to avoid falling off the border. UFO is not in this map.

Map 2 is a shorter more narrow road that has at least a little bit of curve to it almost constantly. The map has one narrow short cut that’s harder to traverse than the the longer and wider route but saves a lot of time and has one of the few fuel pick ups in the level. There are fever fuel pickups in the level so using the boost conservatively is advised.

* 1. Game Objects
     1. Collectable Items

The game’s point system is based on collectable beer. Half of the level completion rating is based on this point system, the other half being the timer. The beer points are tied closer to the game’s story. The player must hit the beer cans with the car to collect them. The game’s ending is based on how many cans have been collected over all the levels.



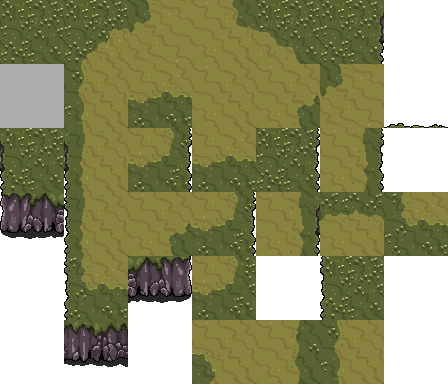


Fuel barrels refill the players fuel to max. They can only be picked up if the player does not have max fuel. Fuel is the resource that the player needs for boosting. Fuel barrels can be found around the map plentifully. If the player can pick up every fuel barrel and manages to use the fuel effectively it is possible to get through the map much faster.

* + 1. Obstacles

Map border is the killing border of the map where the player’s game will end if the centre mass of the car has crossed the cliffside. The border is represented by the end of the raised tiles or by a cliff model.

Roadside grass is considered the part between the “killing” cliff edges of the map and the dirt road itself. The Roadside grass is accurately modelled. So only when hitting the grass part of the tile’s model will the effect activate. The roadside grass acts similarly to the mud puddle in slowing down the player. The turning rate is only half dampened compared to the mud puddle. As the roadside continues, a player might get seriously slowed down in some cases. For example, boosting in the middle of a grass patch. On the flip side there are possible time saving spots boosting over a patch of grass can shave of a second or two from the timer. The slowing will affect when the corner of the car hits the roadside.



*Picture 2 Tile palette*

Cows are wall type animated obstacles that can be found on grass. If the player hits the cow, the player will crash and the game will end. Cows have a looping animation eating grass.

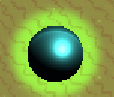
Slowing mud puddles are placed around the map. The mud will slow down the player a moderate amount, makes turning less sharp and starts leaving a mud trail from the tire or tires that hit the puddle. Mostly the mud puddles are placed to be avoidable. At least by a player that has played the map through earlier. Hitting a mud puddle or two isn’t a major setback to completing the levels time goal. It is as much an aesthetic choice to the game as an obstacle for the player. The slowing will affect when the corner of the car hits the mud.

Hay bales are small wall type obstacles that require the player to boost in order to get through. The fact that boosting destroys the hay bale means that the player cannot die to this trap with a head on collision as that also requires the player to boost into a wall. Sometimes hay bales block access to something desirable like points, or a short cut so that the player needs to boost through to get to them. On some occasions hay bales might even be blocking the road on the main route of the map so the player must boost through or go on to the grass to get around. Driving on the grass will slow the car down significantly.





UFO will be harassing the player during runs on later levels. The UFO will be easy to avoid if the player is beating the level at a quick pace (speed-wise). The main use of the UFO is to punish the player if they were to stop completely. Such as hitting a hay-bale without boosting. For that reason it will be introduced on later levels, as having a total stop even without the game ending is a setback. The UFO has three phases. First phase is to move next to the player where ever they are on the map at a quick speed. The next phase the UFO will flash for short time warning the player of the attack. Last phase is a circle movement with the abduction light activated. This phase is the only one which will end the players game if collided with. Other being just positioning and warning of the attack. The aliens will be tied as the main antagonist in the story of the game.



*Picture 4 Enemy*

* 1. Mechanics
     1. Movement

The car can move forwards (W-key or up arrow) and backwards (S-key or down arrow), steer to left (A-key or left arrow) and right (D-key or right arrow), and boost (space).

* + 1. Losing the Game

The levels can be failed in multiple ways, driving off the map, boosting head on to a wall, or by spending too much time in the level and having the timer run out.

* + 1. Winning the Game

The level is completed when the player gets to the finish line before the time runs out. The player wins the game once all the levels have been completed. The ending is determined by the amount of points collected.

* + 1. Interface

The player can pause the game with the escape key. This pauses the game and all its objects. From here the player can resume the game with the resume button or with another press of the escape key. The player can alternatively quit the application or go to the main menu.

Database saves all the players scores from the game for each level.

1. Walkthrough
   1. Beating the Levels

Beating a level is simple but different things can be done to either increase the score or to get a faster time. Different shortcuts can be found through different levels: a grass area that allows for a faster route than the main road or maybe a more difficult but a shorter path. Points are littered around the map and the more difficult the path the more points can be found. Collecting all the points is not intended in favour of more fun and engaging experience.

* 1. The Result

After beating all the levels the game should have a quick recap of the beer collected throughout all the levels. This will judge the ending of the game. Ending will be represented as a simple text.

* 1. Flow Chart

