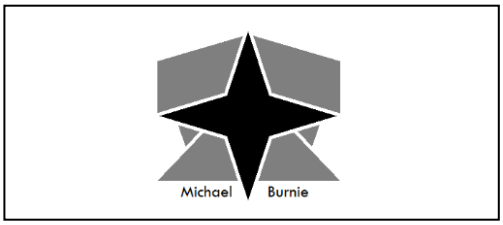
BURNIE GAMES



Coin Collector

It's time to collect coins and chew bubble gum… and I'm all outta gum.

Version 4

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VERSION HISTORY

Version 4

- Added simple game-end screen, includes score and tips
- Got rid of many redundant classes & optimized code better
- Changed repair to heal only 30 points, from 50
- Added comments
- Includes external documentation

Version 3

- Added invulnerability state
- After hitting an object, the player becomes invulnerable for 1 second
- The player cannot collide with cars/flotsam in this state, thus won't lose health
- The player car flashes to indicate invulnerability
- Star power-up added, allows player to stay invulnerable for 7 seconds, spawns infrequently
- Added status, which displays information about hits and other states
- Added additional environment details/sprites
- Reduced mouse sensitivity slightly
- Added music (menu and in-game)
- Added sound effects for each collision, plus engine sound
- Changed collisions to mask from rect to reduce false collisions
- Adjusted volumes for sounds/music; uses constants
- Some commenting done

Version 2

- Player health changed to 100
- Player's score accumulates over time (+1 per frame)
- Coins are now worth 500 points
- Player bounds are now restricted within road area, cannot drive on grass sections
- Updated Instructions screen and scoreboard
- Reduced number of enemy cars to 2 from 3
- Hitting an enemy car results in a loss of 20 health
- Added Flotsam
- Hitting flotsam results in a loss of 10 health
- Added Environmental details such as cracks and tire marks
- Added repair power-up, appears infrequently
- Heals player's health by 50 points instantly

Version 1

- Modified MailPilot.py

- Changed Background
- Controls based on Y-axis, using a car
- Enemies move via x-axis, within 4 defined lanes
- oncoming enemies move at speed + speed of background, to produce oncoming effect
- Player has 10 health, to be modified later
- Intro to be changed in future patch

COIN COLLECTOR OVERVIEW

Game Overview

In this game, the player must collect coins and avoid obstacles coming at them such as cars and barrels. They do so by controlling a car sprite that has a fixed X-axis position on the screen by moving up and down. Aim for the highest score possible!

Game Play Mechanics

The player earns score over time and earns a greater bonus by collecting coins. The player has a health stat that will decrease upon hitting enemy cars and obstacles. There are also power-up mechanics such as a repair and a star, explained later. Music is played throughout; there is also a persistent engine noise, and other sounds occur during collisions with objects (good and bad)!

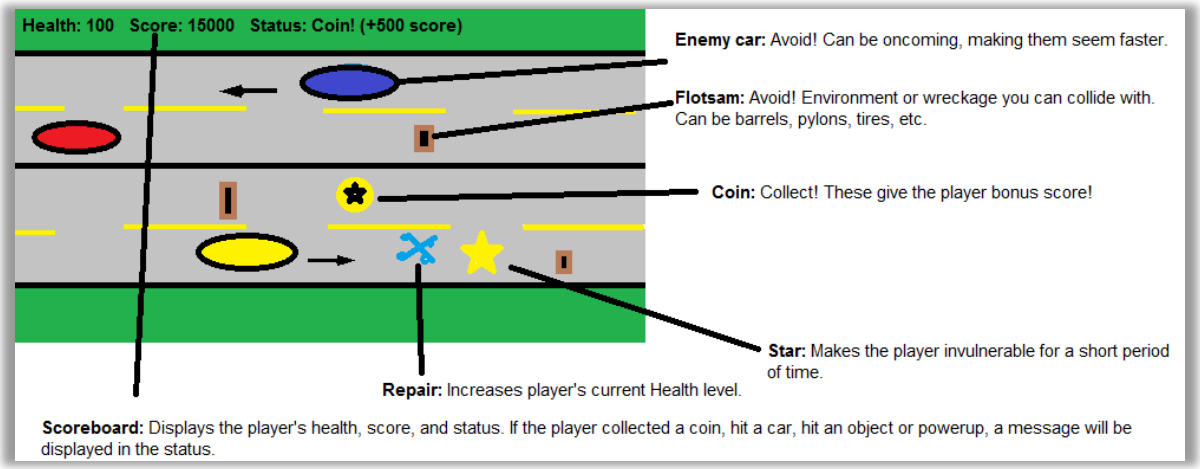
Camera

The point of view is based on the top of the car, looking over the road perpendicularly. This is almost like looking at the car through the view of a bird or helicopter—stuff that flies…

Controls

The game controls simply through movement of the mouse. Only motions of up and down are permitted; horizontal movement does not affect the player's sprite. Mouse sensitivity is reduced to help avoid the mouse becoming stuck off screen.

Interface Sketch



Menu and Screen Descriptions

The following four screenshots show the gameplay and menu screens.

Game World

The game world is simply a busy, evil road. Your car sprite travels along it quickly to attain coins as fast as possible without hitting enemy objects and cars.

Characters

You play as a fast sports car dodging through traffic to collect the coins as quickly as possible. Like most cars, yours doesn't like running into things. You have 100 health to give you enough durability to keep you alive… for a while.

Enemies

Your enemies include traffic and inanimate objects on the road, or "flotsam". Avoid each of these as they do not care if your car explodes. Each hit will reduce the player's health (-10HP for flotsam, -20HP for enemy cars in Version 4). The enemy cars move much faster across the screen when they are on the oncoming (top) lanes.

Items

The player has two power-ups available to be collected: repair and star.
a) Repair: The repair power-up is represented by a wrench and hammer icon. This increases the player's current health level (+30 in Version 4).
b) Star: The star power-up is represented by a Star icon. This makes the player invulnerable to collisions for a specific amount of time (7 sec. in Version 4).

Scoring

The score increases over time (30/sec), and increases for each star collected (500 score in Version 4). The player can no longer attain score when the player's car sprite has been destroyed; this happens when the player health is 0.

Bonuses

- Power-ups: Repair and star
- Music
- Invulnerability state after each collision with enemy/object
- Multiple enemies (2 enemy cars, 5 objects as of Version 4)
- Translucent background on instructions
- Game tips on end screen
- Status displays

Sound Index

- *Menu Theme: TopGear1-1.mp3*
- *In-game music: TopGear1-2.mp3*
- *coin.ogg*
- *crash.ogg*
- *engine.ogg*
- *fix.ogg*
- *hit1.ogg*
- *invulnerable.ogg*

Story Index

You are a coin collector. Everyone is counting on you to collect as much score as possible. If you don't get enough score, people starve! *(or something…)*

Well, people won't starve; you're just greedy and want coins to buy expensive stuff. Too bad you're on a greedy rampage and you won't stop until your car explodes.

Art / Multimedia Index

- *background.png*
- *barrel.gif*
- *blankCar.gif*
- *coin.gif*
- *crack1.gif through crack7.gif*
- *crate.gif*
- *endGame.png*
- *enemyCar1.gif, enemyCar2.gif*
- *fix.gif*
- *grass1.gif*
- *leaf1.gif*
- *leaf2.gif*
- *muffler.gif*
- *oncomingEnemyCar1.gif, oncomingEnemyCar2.gif*
- *playerCar.gif*
- *pylon.gif*
- *star.gif*
- *tire.gif*

- *tiremarks.gif*

Design Notes

At Version 4, the game was optimized, putting classes to better use. Images are stored in an array (when needed) and randomized using the array for environment objects.

Future Features

- *Additional enemy cars/colours*
- *Countdown timer before game starts*
- *Explosion of car when game ends*
- *Progressive difficulty*
- *Additional power-ups*
- *Modifications to car*
- *Cheat codes*
- *Save games*
- *Fuel & pit stops*
- *Additional backgrounds, or levels*