

Pooping Pigeon

—Remember: White car, black poop; black car, white poop.

Play-through: <https://youtu.be/zi5ws33LM3U>

Overview	1
Storyline Setting	2
Control	2
Mechanics	2
Vehicles	2
Displays	3
Start screen	3
Main Screen	3
End Screen	3
Future Plans	4

Overview

Pooping Pigeon is a light-hearted 2D single-player game that takes inspiration from an internet pigeon meme, combined with a similar gameplay style to the famous mobile game “Angry Birds”. The player will be playing as a pigeon standing in a high place, keep pooping on vehicles on the road, and will be scored if the poop colour is opposite to the vehicle colour (as the meme says, White car, black poop; black car, white poop).

(image source:



<https://www.reddit.com/media?url=https%3A%2F%2Fi.redd.it%2Fi-better-get-a-polka-dot-car-then-v0-hu7pfbosip81.jpg%3Fs%3DDeb9c317e8ec313ad278e0eca108f2de9b0d2a29e>)

Storyline Setting

Players will be playing as a pigeon that is hired by a car wash facility, whose duty is to poop on the vehicles passing by in order to get more business for the car wash. Vehicles will be coming from the right to the left side of the road, and the pigeon should poop on as many as possible vehicles in 1 minute. Pooping on vehicles that are already passed by the car wash will not score as it is a one-way road and hence they will not be coming back.

Control

The only controllable character in this game is the pigeon. It is controlled through left and right mouse buttons, and these interactions are mainly handled by a class CGameManager. There are several modes in the gameplay:

- **Aiming:** The player will be holding and dragging either the left mouse button or right mouse button to aim for the vehicle to poop on. A target sign will be shown on the road level to indicate the expected position when the poop is dropped on the road.
- **Shooting:** The player releases the mouse button and the poop is shot. The poop is projected in a gravitational field ($g = 9.8$) and moves along a parabolic path until it hits the road or any vehicle.
- **Idling:** The character will be in idle mode if no button is pressed or both left and right mouse buttons are pressed at exactly the same time.

Depending on the mouse button pressed, the poop dropped will be in different colours. Specifically, if the player aims with the left mouse button down, the pigeon will drop white poop, otherwise, the poop will be in black.

Mechanics

Vehicles

The vehicle behaviours are introduced in "Vehicle.cpp". Vehicles will be spawned from the right side of the screen and will travel along the road to the left side of the screen. While there will be

3

a fixed assured clear distance between vehicles, the actual traffic volume is randomly generated. Same for the vehicle colours.

Depending on the vehicles' status, they will obtain difference appearances. If a vehicle is pooped with a pigeon drop in the opposite colour, the display will change accordingly. It will not be affected if the poop is in the same colour.

If a vehicle is pooped upon reaching the car wash, it will go in to clean its exterior and vanish from the screen. Otherwise, it simply passes by and cannot be pooped on anymore.



Displays

Start screen

The game starts with the screen showing the title and simple instructions. There is also a picture of the meme, showing the source of inspiration of the main theme.

Main Screen

Once confirmed, the player will be brought to the main screen of the game. The player will have 1 minute to collect scores, and the time countdown will be displayed in the top right corner, along with a simple reminder/instruction.

When the player is aiming, it will display a target on the road level to indicate the expected drop position, as well as an auxiliary line showing the direction of the initial velocity (tangent line of the movement curve). Poops and vehicles will be in different appearances according to their status.

End Screen

The game will end after one minute and the screen will display the total scores that the player has collected.

The display is mainly controlled by the `Render()` function.

Future Plans

- Introduce more interesting levels.
 - Create more car lanes where the pigeon will have to fly between vehicles and be careful of getting hit. Also, add the character movement control in this context.
 - Make adjustments to the vehicle speed and traffic volume as the game advances. There are already some designs in the code base that are reserved for such modifications.
 - Introduce more limitations and punishment mechanisms, such as a limited number of available poop that can be shot in a level / CDs between pooping, or the reaction of the vehicle driver when being pooped with the same colour as the vehicle (when the vehicle is alerted).
- Add a more detailed & intuitive tutorial instruction or tutorial level.
- Bring in the in-game setting scene, where the player can, for example, change the difficulty level (vehicle speed, traffic volume etc.), and adjust the button sensitivity and the key-bindings.
- I can also see some potential in this game to be developed into some kind of musical game...