

CSE 210—TEAM 09—GAME WRITEUP AND MOCKUPS

What program are we going to create?

We are going to create a game that is tentatively called, Kerchunk!. The gist of the game is as follows:

The player controls a bird in the sky and tries to drop stones onto the cars driving along the street beneath (see mockups below).

What is our timeline?

We have roughly four weeks to complete the project for the Game Showcase. Week 1 is planning, week 2 is the Alpha Build, Week 3 is the Beta Build, and Week 4 is the Stable Release Candidate.

What technologies will we use?

We will use PowerPoint to create our mockups, Word to create our writeups, GitHub to work asynchronously, Slack to communicate as needed, Canvas to submit each weekly release for review, and VS Code to write our program using the Python programming language. In VS Code, we will be using the Python Arcade Library. The overall program will contain, among other things, the following programming concepts: Classes, Objects, Methods, Abstraction, Encapsulation, Inheritance, and Polymorphism.

What features will we include?

The game will open with a Main Screen with the title at the top, game art below it, two buttons (PLAY and HELP) stacked atop each other below the art, and the High Score posted at the bottom of the screen (see mockups).

HELP (goes to information screen):
Welcome to Kerchunk!

You have been commissioned by the Birdhouse Alliance to retaliate against the humans and their abominable, flying machines.

Your mission is simple: Remind them we are the true rulers of the skies by peppering their land carriages with stones!

Controls:
Press A or D to turn the bird left or right

Press SPACEBAR to drop stones

Gameplay:

Gain 10 points by hitting the designated, painted targets

A new target will be selected, and ammo replenished, with every successful hit

Humans are attentive creatures; they will notice when a vehicle is hit and will speed up

Running out of ammo means game over

The current score and ammo are shown at the top-corners of the screen

Credits:

Christian Soldevilla

Jared Call

Jhan Chavez

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RETURN (returns to main screen)

PLAY (begins gameplay):

The player takes control of a bird that is flying across the sky above a cityscape. At the bottom of the screen are several vehicles driving left and right over the road. The top-left corner of the screen shows the tallied Score, and the top-right corner of the screen shows the remaining Ammo (see mockups).

The bird always moves at a constant speed, and the A or D buttons simply change the horizontal direction the bird is traveling. When the bird reaches the edge of the screen, it wraps around to the other side and continues in the same direction as before.

SPACEBAR drops the stone towards the targets. The stone always falls at a constant speed unless it comes in contact with a cloud, then it falls at $\frac{3}{4}$ speed until it breaks through the cloud. The maximum total ammo is always 10.

There are two clouds on the screen at differing elevations below the bird, and they are always moving from left to right at a constant speed. When a cloud reaches the edge of the screen, it wraps around to the other side and continues in the same direction as before.

At the bottom of the screen are 5 vehicles moving across the road. Three of the vehicles are always moving right to left at the same speed as each other. The other two vehicles are always moving left to right at the same speed as each other, but slightly faster than the three going the other direction. The two vehicles are traveling in a lane in the foreground and so pass in front of the other three vehicles (see mockups). Whenever any vehicle reaches the edge of the screen, it wraps around to the other side and continues in the same direction as before.

The vehicle that is selected as the designated target is highlighted in some way as to stand out from the other vehicles on the road. This vehicle also becomes slightly larger than the other vehicles which will cause it to be the vehicle that gets hit even while it is intersecting

with another vehicle (see mockups). The highlighted vehicle is the only thing that gives the player points (10).

Whenever any vehicle (including the highlighted target vehicle) is struck by a stone, all of the vehicles speed up at an equal increment.

If the highlighted vehicle is struck by a stone, 10 points are added to the Score, the amount of Ammo is reset to 10, and a new highlighted vehicle is chosen at random.

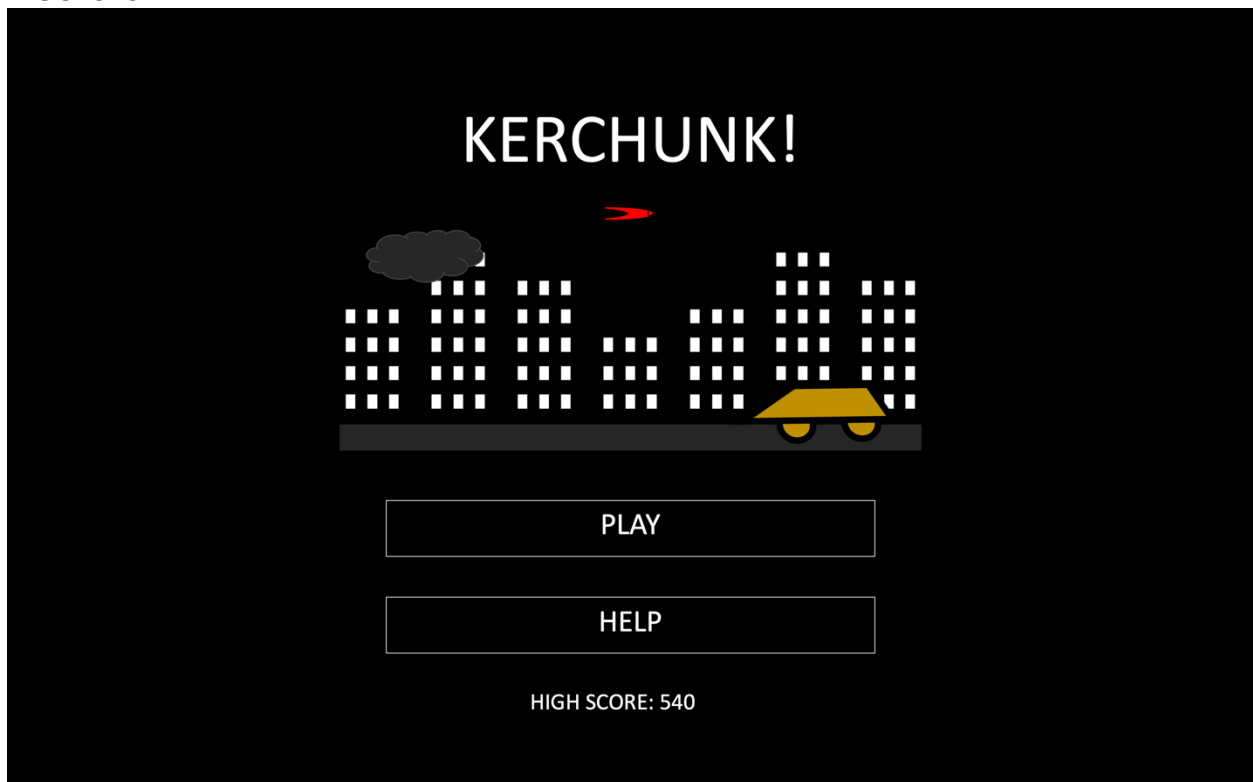
Gameplay continues this way until the player runs out of ammo without striking the designated target. At this point, it is game over.

When the game is over, it switches to the Game Over Screen. The Game Over Screen shows the words GAME OVER in large font. Beneath them are listed the total Score for that playthrough and the High Score (highest ever score achieved).

If a new High Score has been achieved this playthrough, the Score and the High Score will be highlighted in some way to show they are the same.

The Game Over Screen shows for 10 seconds before returning to the Main Screen.

MOCKUPS:



WELCOME TO KERCHUNK!

YOU HAVE BEEN COMMISSIONED BY THE BIRDHOUSE ALLIANCE TO RETALIATE AGAINST THE HUMANS AND THEIR
ABOMINABLE, FLYING MACHINES.

YOUR MISSION IS SIMPLE: REMIND THEM WE ARE THE TRUE RULERS OF THE SKIES BY PEPPERING THEIR LAND CARRIAGES
WITH STONES!

CONTROLS:

PRESS A OR D TO TURN THE BIRD LEFT OR RIGHT
PRESS SPACEBAR TO DROP STONES

GAMEPLAY:

GAIN 10 POINTS BY HITTING THE DESIGNATED, PAINTED TARGETS

A NEW TARGET WILL BE SELECTED, AND AMMO REPLENISHED, WITH EVERY SUCCESSFUL HIT

HUMANS ARE ATTENTIVE CREATURES; THEY WILL NOTICE WHEN A VEHICLE IS HIT, AND WILL SPEED UP

RUNNING OUT OF AMMO MEANS GAME OVER

THE CURRENT SCORE AND AMMO ARE SHOWN AT THE TOP-CORNERS OF THE SCREEN

CREDITS:

CHRISTIAN SOLDEVILLA
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RETURN

SCORE: 30

AMMO: 7



GAME OVER

SCORE: 120

HIGH SCORE: 540