

Cannoneer

Ay, so ye landlubbers think ye has what it takes to be a pirate captain? 'Tis a dangerous life, and one must be quick with a wheel and a cannon if ye wishes to see the booty. However, if ye heart is set and ye resolve is steely, give it a whirl. However, don't be surprised when we meet in Davy Jones' Locker...

~ Text which will be written on the cabinet

Cannoneer is a horizontal shooter with vertical shooter mechanics. In the game, you take control of a pirate ship, and must evade and destroy enemy ships that appear above and below you, using your port and starboard side cannons. The game takes on a horizontal shooter feel, as the game moves from left to right and enemies come from the right side of the screen as opposed to the left, but all of the shooting occurs on the vertical y-axis. The game is meant to be an arcade game housed within a cabinet with very simple controls.

Game World, Story, Visual Style

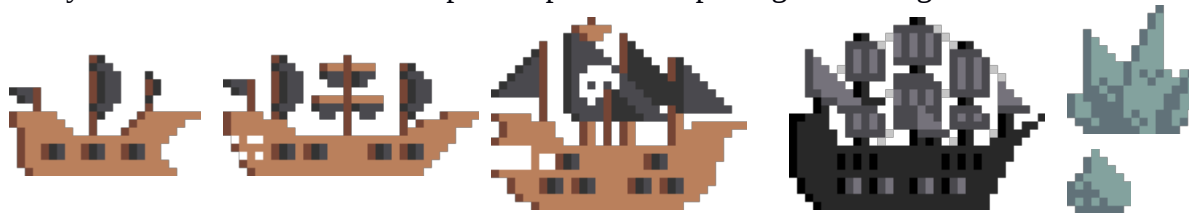
The World

The year is 1670, and the Caribbean represents a place where piracy is a profitable and intriguing venture. The political unrest in the scattered islands creates a haven for the buccaneers that flock to the crystal blue waters, and the promise of wealth and glory are too good to pass up for most. The seas, however beautiful, are muddied with the remains of old ships, both pirate and Spanish. Spanish and European treasure is rumored to be hidden everywhere, and there are many pirate groups who wish to seize it for themselves.

You play the role of a nameless captain in the midst of this battle for gold and glory. After a stroke of good fortune, you happen upon a map of the rumored “Tesoro de Carlos”, a fabled treasure hidden by the king of Spain, Charles II. The treasure is split up into many islands, and you must venture to these islands in order to obtain the gold. It will not be easy, as the treasure is not only known by you, but as a few other pirates groups as well and the Spanish Empire, who will do anything in their power to keep the treasure safe. You must navigate the open seas, dodging obstacles and fighting ships, in order to obtain the greatest treasure in all of the Caribbean!

The Visual Style

Cannoneers is supposed to be an arcade game reminiscent of the early 1980s games like *Galaga* and *Centipede*. With that in mind, *Cannoneers* attempts to recreate this feeling by using graphics similar to those found in those games. The graphics will be simple low-definition raster graphics, similar to those seen in the previously mentioned games. In order to show what I mean, I asked my friend Sean Poole to draw up some possible ship designs for the game:



The game is also meant to be a cabinet game, much like other early 1980s arcade games. This means that the visual style will also be represented on the cabinet, which will have a large caricature of a pirate accompanied with the text that is on the top of this page.

Tokens and Objects

Ships

- Sloop
- Brigantine
- Frigate
- Runner
- Spanish Galleon

Obstacles

- Rocks
- Flaming Barrels
- Sharks

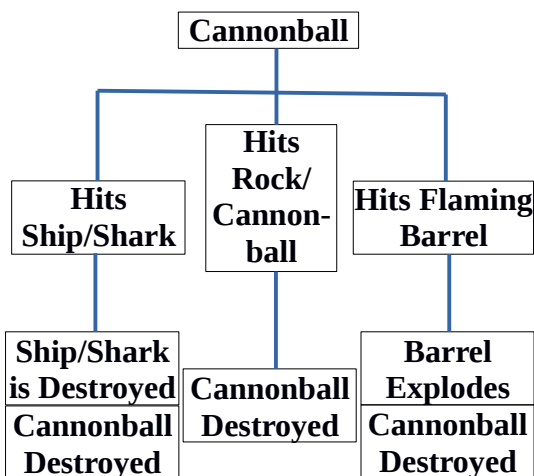
Objects

- Cannonball
- Treasure Chests

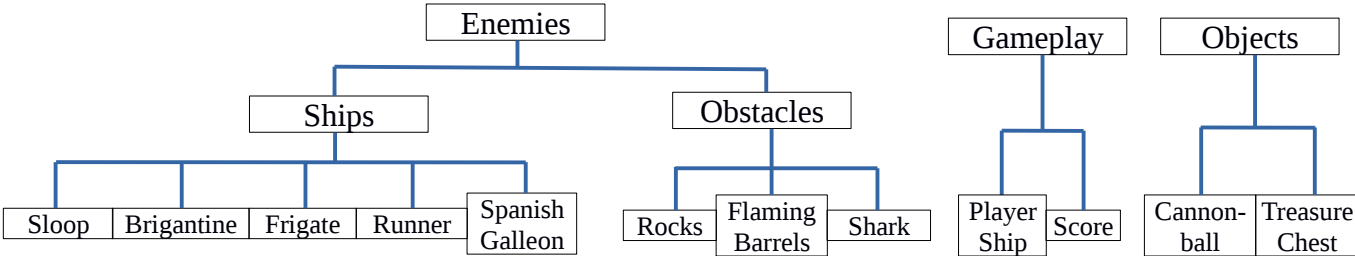
Gameplay

- Score
- Player Ship

I chose the state diagram for the Cannonball because it is the most interesting out of all of the tokens



	Player											
Player	X	Sloop										
Sloop	Collision Event Game Over	X	Brigantine									
Brigantine	Collision Event Game Over	X	X	Frigate								
Frigate	Collision Event Game Over	X	X	X	Runner							
Runner	Collision Event Game Over	X	X	X	X	Spanish Galleon						
Spanish Galleon	Collision Event Game Over	X	X	X	X	X	Rock					
Rock	Collision Event Game Over	Collision Event Ship Destroyed	Collision Event Ship Destroyed	Collision Event Ship Destroyed	Collision Event Rock Destroyed	Collision Event Ship Destroyed	X	Flaming Barrel				
Flaming Barrel	Collision Event Game Over	Collision Event Ship Destroyed	Collision Event Ship Destroyed	Collision Event Ship Destroyed	Collision Event Ship Destroyed	X	X	X	Shark			
Shark	Collision Event Game Over	X	X	X	X	X	X	Collision Event Barrel Explodes	X	Cannonball		
Cannonball	Collision Event Game Over	Collision Event Ship Destroyed	Collision Event Ship Destroyed	Collision Event Ship Destroyed	Collision Event Ship Destroyed	Collision Event Ship Destroyed	X	Collision Event Barrel Explodes	Collision Event Shark Destroyed	Collision Event Destroys Both	Score	
Score	X	Score Event \$	Score Event \$\$	Score Event \$\$\$	Score Event \$\$	Score Event \$\$\$\$	X	Score Event \$	Score Event \$\$	X	X	



Relationships Between Tokens

The Enemies

In *Cannoneer*, there are a few enemies (ships) that you must avoid and destroy in order to reach the end. The first ships you encounter are called Sloops. Sloops are the most common ships and can't do much. They move from right to left across the screen, and fire their cannons in an attempt to hit the player's ship. If a player hits the Sloop, it will be destroyed and the player will get points. It only takes one shot from the player's cannon to sink a Sloop.

As you advance, you will encounter more enemies. The next enemy you encounter is the Brigantine. The Brigantine is a large ship that acts very similar to the Sloop. It moves right to left and attempts to hit the player's ship. However, the Brigantine is different as it can move right to left as well as left to right. Occasionally, the Brigantine will change its direction in an attempt to either evade an incoming cannonball or line up a shot with the player's ship. This makes the Brigantine a much more difficult foe.

Another ship you may encounter is the Frigate. The Frigate is a ship that moves similar to the Brigantine (it can move right to left and left to right), but it can also move vertically up and down, and has two cannons on each side as opposed to one, making the Frigate much more difficult to evade than the Brigantine or the Sloop. The Frigate requires two hits from the cannon to go down.

The Runner is a special ship as it does not act like the past ships. It is designed to move across the screen very quickly, much quicker than the other ships. In addition to this, it is designed to make sweeps. It will not move right to left, then change directions in the middle of the sweep. Instead, it will move from right to left, attempting to ram the ship. Then, once it passes the ship and goes offscreen, it will turn around and try again, this time trying to ram the ship from behind. The Runner does not have any cannons as its only goal is to hit the player ship.

The final ship you encounter is called the Spanish Galleon. The Spanish Galleon is the largest ship of them all, and can be seen as a mini-boss of sorts. The ship is large and has two stages. The first stage is dropping flaming barrels from the right third of the screen, which will hit the player ship and blow it up (see flaming barrels in the next section). The second stage resembles the Runner, as it will make quick sweeps from side to side, but unlike the Runner who does not use cannons, the Spanish Galleon will launch a flurry of cannonballs your way, and the player ship must try and avoid them. In addition to this, it is much more difficult to destroy a Spanish Galleon, as it takes three hits to sink it, as opposed to the one or two shots from other ships.

The Obstacles

In addition to ships, players must watch out for a variety of obstacles. There are three main obstacles for the player to look out for: rocks, flaming barrels, and sharks. Rocks are very simple, as they cannot do much. They move from right to left across the screen but cannot move vertically. If the player ship hits these rocks, they will sink, but the player cannot destroy the rocks. The rocks will also effect the enemy ships, as if an enemy ship hits a rock, they will sink. However, in this case, the player will not get points.

Another obstacle for players to look out for are the flaming barrels. Flaming barrels are dangerous as they move from right to left, much like the rocks, but instead of the rocks, flaming barrels explode if the player ship gets too close to them. If the player ship shoots the barrels, they will make a leak in the barrel and the barrel will sink, without blowing up. The player ship gets points if they do this.

The final obstacle players must look out for are sharks. Sharks cannot destroy the player ship like flaming barrels do, but like the rock, if the shark hits the ship, it's game over. The shark moves from right to left in a wave pattern, moving up then down and back up again. This brings verticality into the mix of obstacles, and makes the player ship have to work harder to avoid it. If the player ship shoots the shark, the shark will die and the player will get points.

Gameplay

The Ship

You are in control of the ship, which is located at the left side of the screen. The ship has full movement control: it can move not only up and down, but left, right, and diagonally as well. The ship has the entirety of the left two-thirds of the screen to maneuver – the right third is reserved for incoming obstacles and mini-boss battles.

The shooting is very simple, you can either shoot upwards or downwards. The cannons come from your ship, so if you are at the top of the screen and shoot upwards, the cannonball will not go very far, and vice-versa for the bottom of the screen. After you fire each cannon, there is a “reload” period where you cannot fire your cannon. This will be represented by a bar in the top left corner of the screen. The cannons also fire independently of each other – the cooldown period does not apply for alternating the cannons. This means that you can fire the cannons at the same time if you so wish with no waiting period.

The Points

Being an arcade game, *Cannoneer* is very focused on the amassing of points collected through various means. The most obvious way to get points is by completing the stage, but there are a few other ways to receive points.

The player can receive points by shooting down ships and some obstacles. The amount of points the player receives from each sinking ships comes from how difficult the ship is to destroy. For example, shooting down a Sloop will not garner the player many points, considering it is the easiest to destroy in the game. However, shooting down something like a Spanish Galleon will end up with the player receiving many points, as taking down a Spanish Galleon can be seen as quite a feat. For obstacles, shooting down flaming barrels will give the player a few points, but shooting down a shark will give the player more points, as they are more difficult to hit.

The player may also receive points from treasure and sunken ships. Treasure is shown by treasure chests floating on the water, and can be collected by the player ship by running over it. The treasure is acts just like rocks do, only instead of hurting the player if they hit them, treasure helps the player. Sunken ships can also garner players more points. If a player manages to run over a ship that they have destroyed, the player will get a bonus from when they sunk the ship in the first place. This is more difficult to do however, because as soon as the ship is sunk, the sunken ship will act like the rock and move the left side of the screen quickly, so the player must move quickly in order to pick up the sunken treasure.

At the end of the game, points are tallied up and displayed on a leaderboard, which is outside of the game’s diegesis/play field.

The Endgame

The goal of the game is quite simple: reach the end of the stage. At the end of each stage, there is an island with a treasure chest on it. After the player ship reaches the island, scores are tallied up from the player’s ability to shoot down ships and obstacles as well as their ability to pick up things such as treasure chests which float around in the water and give extra points. The scores influence a leaderboard, which is shown at the beginning and end of the game.

The other way a player can end the game is by losing. If the player ship is hit by an enemy cannonball or obstacle, much like in Galaga, the ship will explode and the player must start from the beginning of the stage again. The player will continue to do this respawn ritual until they run out of their three lives, at which point the game will be over. Points are tallied up, and they are placed on the leaderboard.

The leaderboard works by showing the top ten players with the highest scores. If a player manages to beat one of the scores, they are able to input their initials and will stay on the leaderboard until someone else beats their score.

Distinguishing Features/Exhibition

The Gimmick

The feature that sets this game apart from other horizontal shooters is its interesting mechanics. The game is pitched as being a “horizontal shooter with vertical shooter mechanics”. In addition to the shooting happening on the vertical axis, projectiles move much slower than standard arcade games, meaning players must take great care in lining up their shots in order to destroy their enemies. The final thing that sets it apart is its housing...

The Cabinet

The game is designed to be a old fashioned arcade game from the early 1980s, which can be seen in its score-based gameplay and art style. However, in addition to these things, being an arcade game from the early 1980s means that it belongs in a suitable arcade cabinet. The cabinet is talked about in more detail in the section “The Visual Style” on page 1, but one thing that was not mentioned there are the controls on the control panel.

The controls are as simple as the ship mechanics themselves. The way the layout works is that there is a joystick which controls the ship’s movement and two buttons that lay beside the joystick which operate the cannons. The buttons are placed vertically on top of each other, which clearly shows which is the port-side cannon (up) and which is the starboard-side cannon (down). The buttons are strong, allowing for players to mash them as much as they’d like.

Arrgh... Twas a valiant effort it was, and ye got so close to the last of the treasure. The question is... do ye have the resolve to try again?

~Text seen at game over