

Quokka Blocka

High Concept

“Flip the rules of Tetris on their head! Keep a running Quokka safe by creating an endless path out of Tetris blocks”

Quokka Blocka is an interesting spin on the endless runner genre which requires players to utilise problem-solving skills in addition to their platforming skills and quick reflexes.

As a magical Quokka perpetually runs towards the right of the screen trying to escape from danger, the player must use falling blocks to create a path around obstacles and over deadly gaps that the quokka can traverse quickly and safely.

However, these aren't just any blocks- they're Tetrominoes, and the rules of Tetris apply to them – though sometimes the player may encounter special blocks with strange appearances and behaviours.

Core Experience

Quokka Blocka will be designed to make players experience challenge and tension.

Challenge: While the premise of the game is simple, there's a lot that the player has to think about and do in a short period of time. Not only do they have to ensure that the path they construct avoids obstacles, but they also have to be aware of the way that the individual blocks interact with the quokka, and each other. For example, their path may look fine, but it goes too high for the quokka to quickly climb, and the quokka will get caught by the entity pursuing them (such as a fire). Another troublesome situation may be where the player has placed a bouncy block in a position that propels the quokka into an obstacle, killing them.

Tension: As the fire gets nearer and nearer, the tension of the game increases. You have less of a safety net for mistakes, and one silly mistake could cost you. The meter at the top of the screen showing the distance between the quokka and the fire means that even when you have a lead on it, it is always a persistent threat. It's even more threatening when it's clear in view, lighting up the screen, and will make the player feel panicked. The tension brought about by a constant threat makes players put more thought into their actions.

To summarise, **Challenge** relates to the game elements in front of the player, while **Tension** relates to the pursuing entity behind them.

Gameplay

The player is tasked with building a path for an ever-moving quokka out of tetrominoes. The player must ensure the quokka does not run off the edge, while also ensuring the path doesn't slow the quokka down enough for them to be caught by the fire they are trying to escape

Each level starts with a base path constructed of blocks which the quokka will run across. It is short, but gives the player enough time to extend the path with falling tetrominoes in order to keep the quokka alive.

Tetrominoes fall one-at-a-time from the top of the screen, and can be moved and rotated like in Tetris. Also like in Tetris, the tetrominoes stay in place when held up by another block.

If seven individual blocks line up in a row, then they will disappear, and the blocks above them will move down like in Tetris.

As the quokka runs through the level, pre-existing blocks will appear in front of them. These can either be used as a foundation for you to place more blocks on, or treated as obstacles and avoided.

Some blocks will have different appearances to normal blocks, which relate to special abilities that will trigger when the quokka runs over them (such as a bouncy ability that propels the quokka into the air).

The quokka can climb up vertical walls of blocks, but they slow him down. If a wall is too high (about 5 blocks high) then it will take too long for him to climb it, and the fire will get them.

The quokka can safely fall any distance if they run off the end of the path, provided they land on another block. If there is no block to land on then they fall off the screen.

The quokka will build up momentum the longer they move forward, which will increase the distance between them and the fire, but if the player stacks blocks too high upwards, then it will slow the quokka down, and the fire will begin to catch up.

Game Over can be caused by three things:

- The quokka running off the end of the path and not landing on another block
- The fire catching up to the quokka
- The path reaching the top of the screen
- A block landing on the quokka

Target Platform / Audience

Quokka Blocka's target audience includes:

- Casual Gamers
- Young Gamers

These audiences will be attracted by the cute and colourful aesthetic, and their familiarity with Tetris. The game is relatively simple to understand, and can be played in short bursts or longer sessions, which is what these audiences are after.

Technology

The game will be developed for PC using the Unity engine, due to the team's familiarity with Unity and with C#. Adobe Photoshop and Illustrator will be used to design the art assets for the game, such as character graphics and scene backdrops.

Team

Each team member will assist with all aspects of the project that they are able to, however each member will have a main responsibility that will be their primary focus in addition to the responsibilities of their respective positions.

Rhys Clarke

Position: Vision Holder

Main Responsibility: Programming

Joshua Whittington

Position: Producer

Main Responsibility: Level and Mechanic Design

Annabelle Macfarlane

Position: Visual Lead

Main Responsibility: Level and Mechanic Design

Joshua Morgan

Position: Scrum Master

Main Responsibility: Programming

Backlog

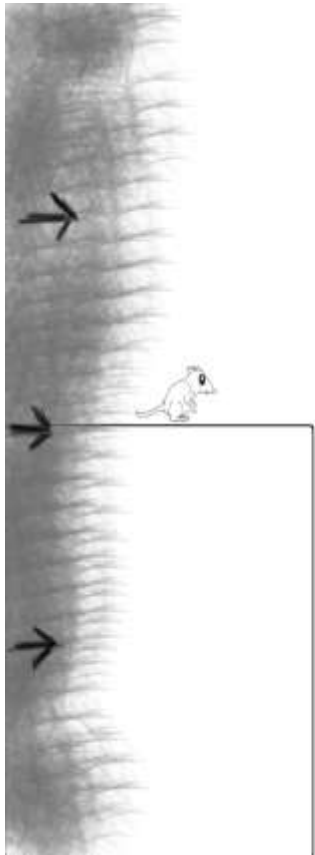
- Tetris Mechanics
- Scrolling Gameplay/Tetris on a scrolling horizontal axis
- Quokka Character Movement
- Procedural generation of obstacles.
- Pursuing Entities
- Power-ups
- Collectibles
- Level Backdrop Art
- Soundtrack
- Cosmetic Options

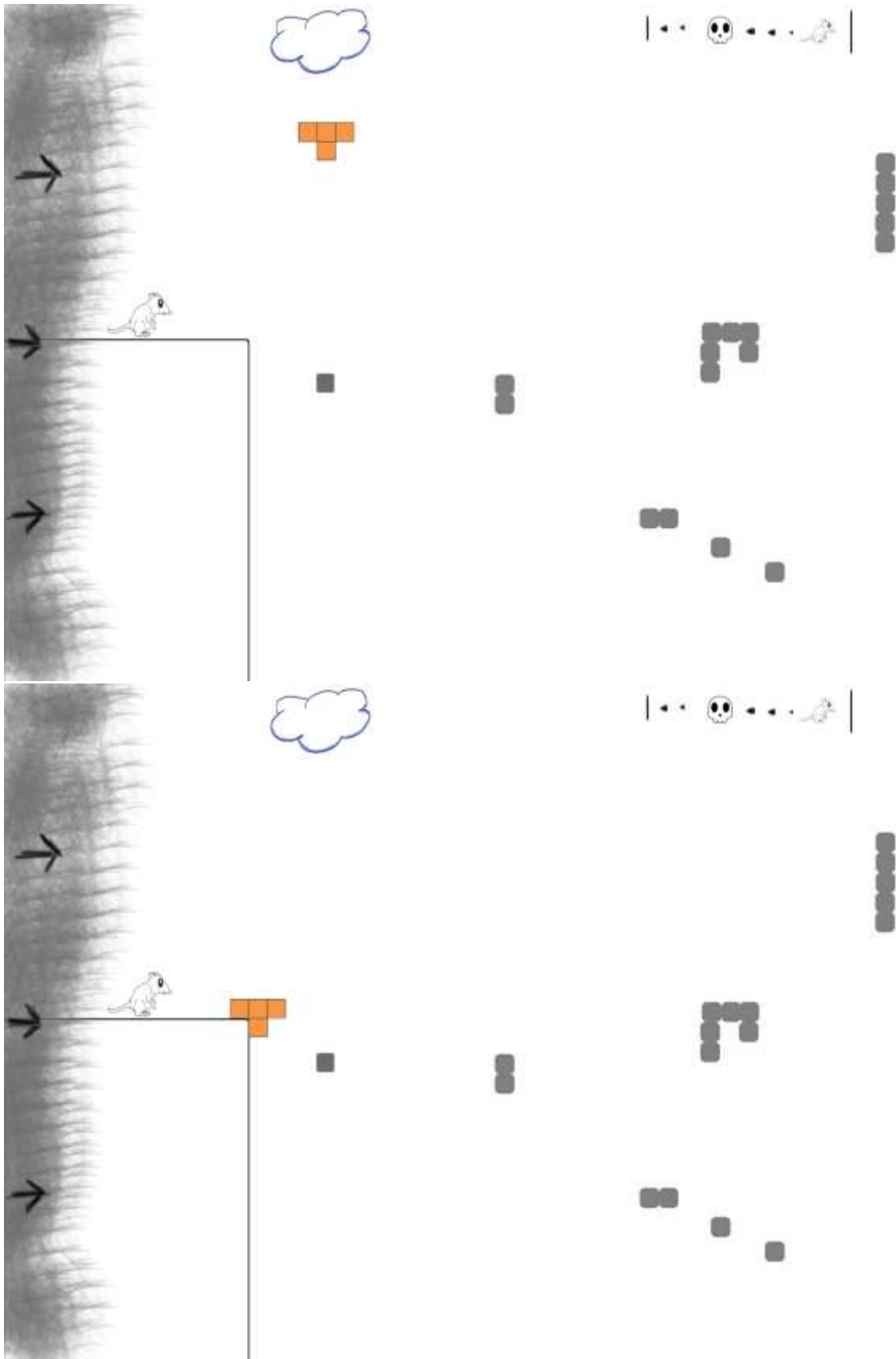
For our first sprint, we aim to achieve the following:

- Tetris Mechanics
 - Spawning of Blocks
 - Elimination of Blocks In A Row
 - Rotation and Movement of Blocks
- Scrolling Gameplay/Tetris on a scrolling horizontal axis
 - Movement of block spawner towards the right of the screen.
 - Implementing an “infinite” side-scrolling level
 - Seamless wraparound
 - Clearing of unused sections
- Quokka Character
 - Placeholder Sprite
 - Movement Rules
- Obstacles
 - Design of premade obstacle courses made from blocks.
 - Applying Tetris rules to computer-added blocks

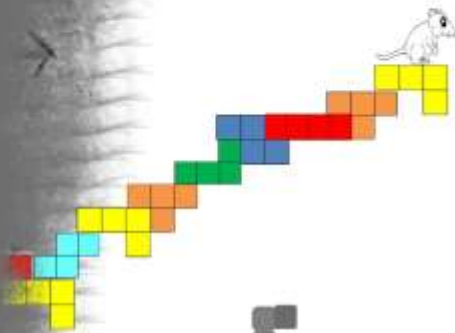
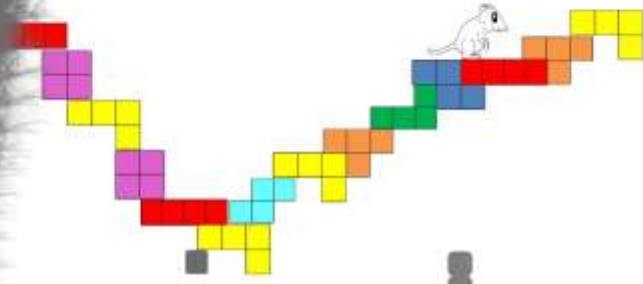
Storyboards

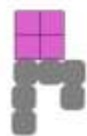
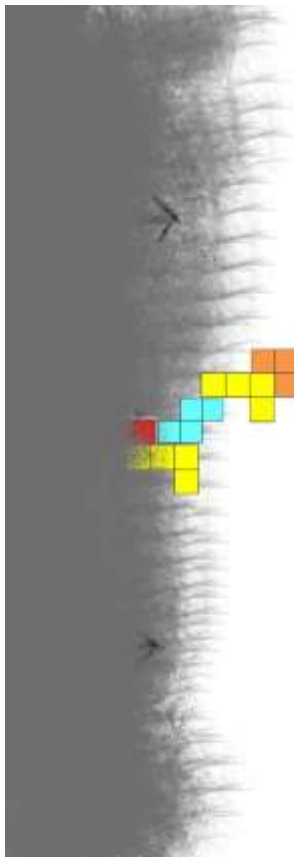
Placing a block



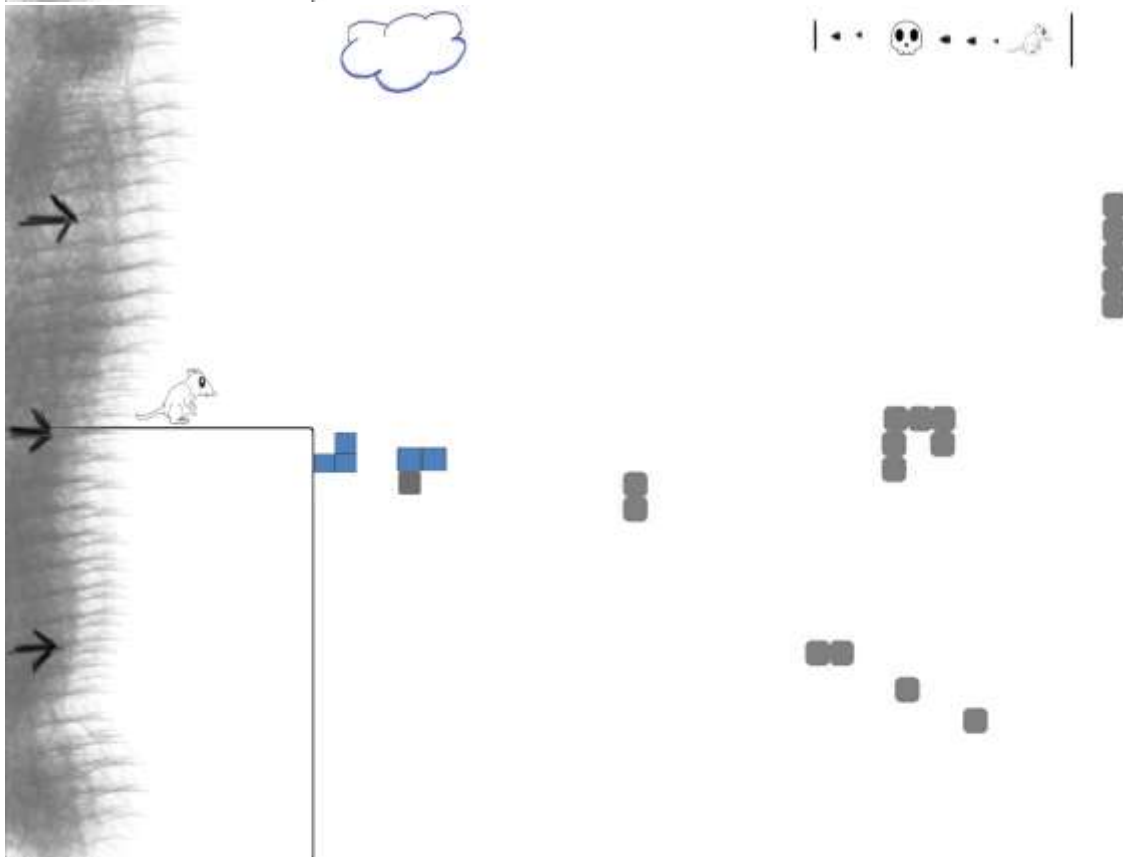
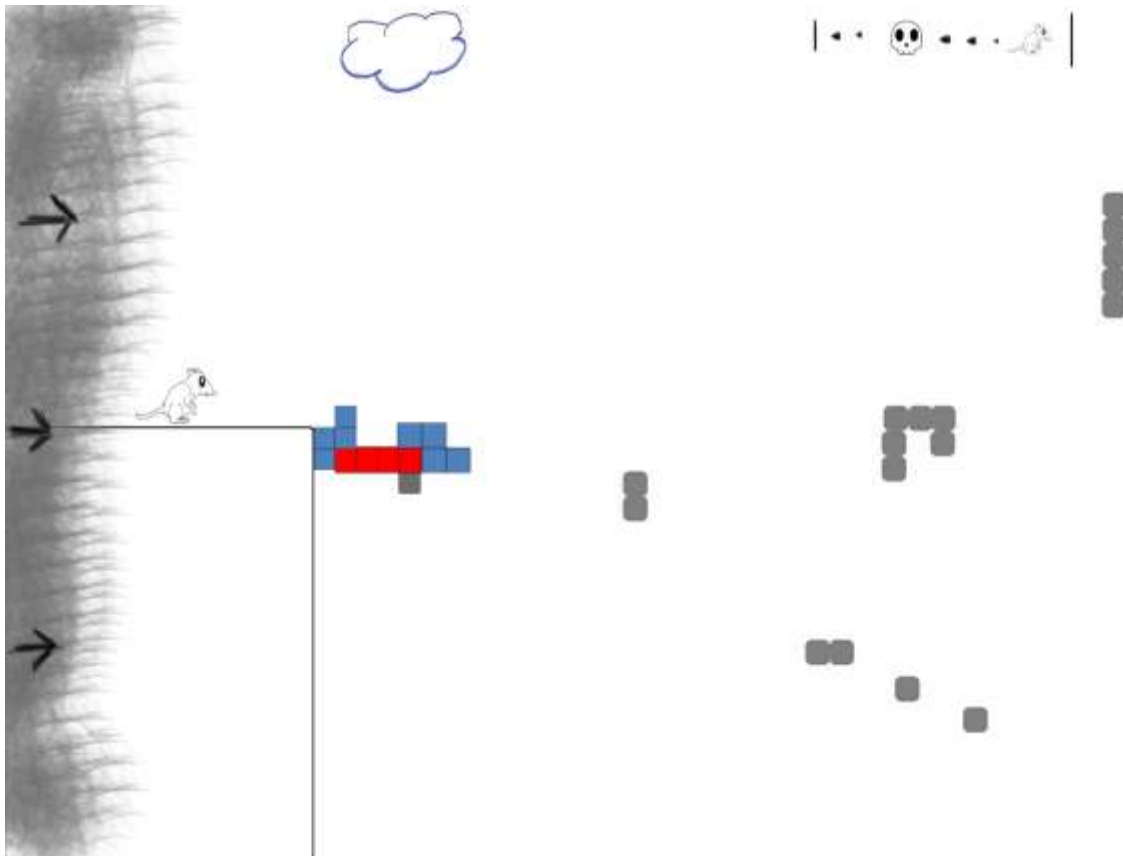


Screen Scrolling

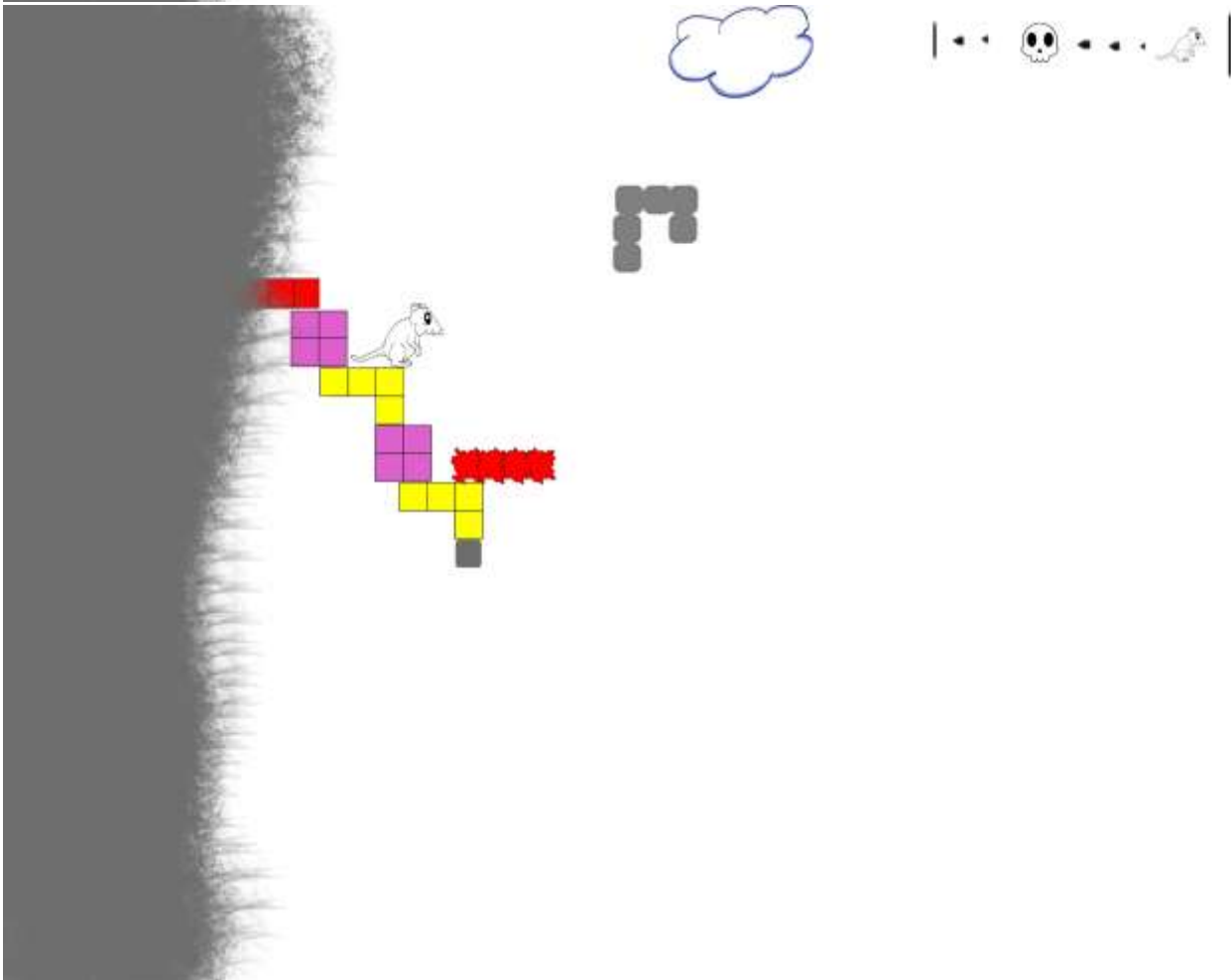
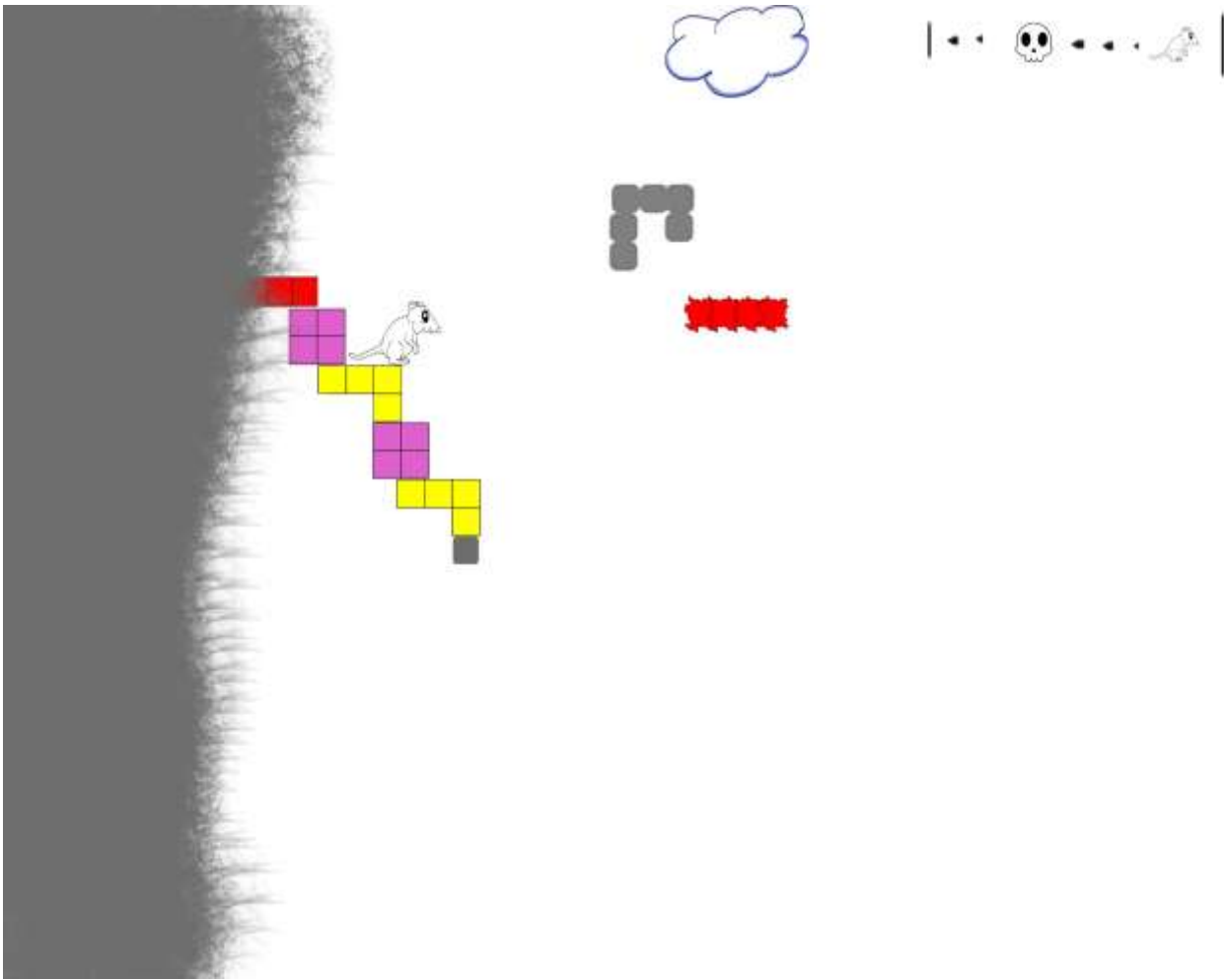


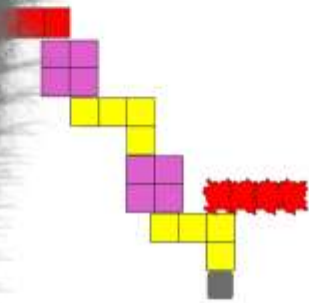
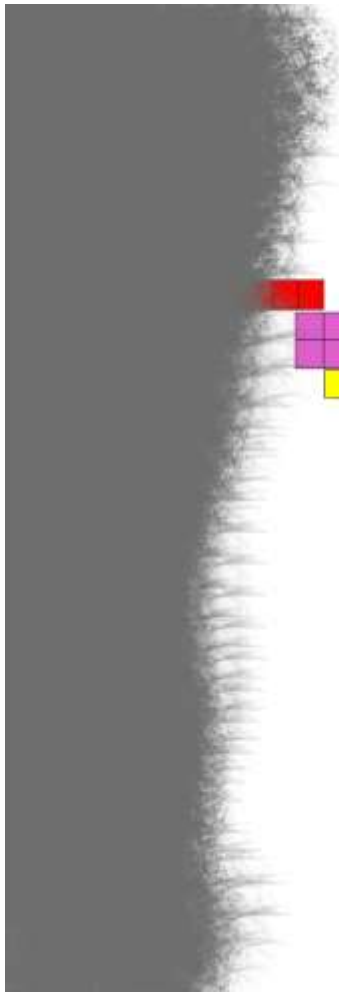
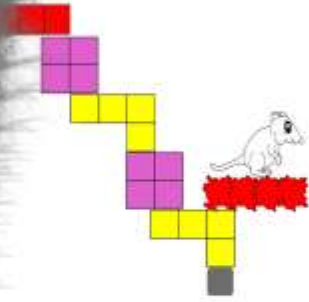
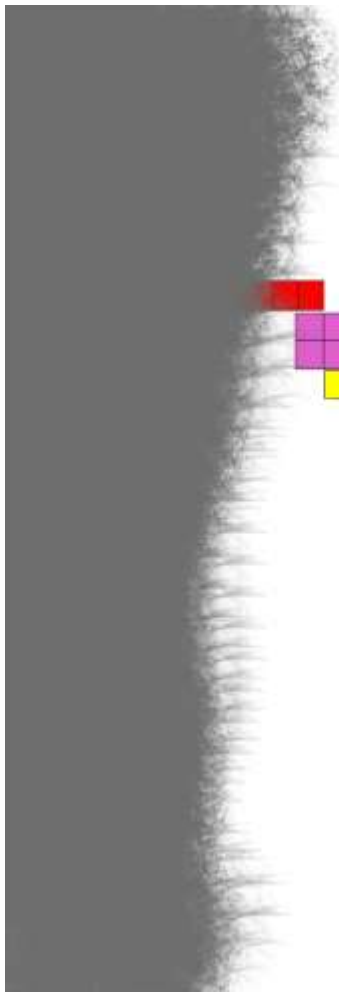


Line Clearing

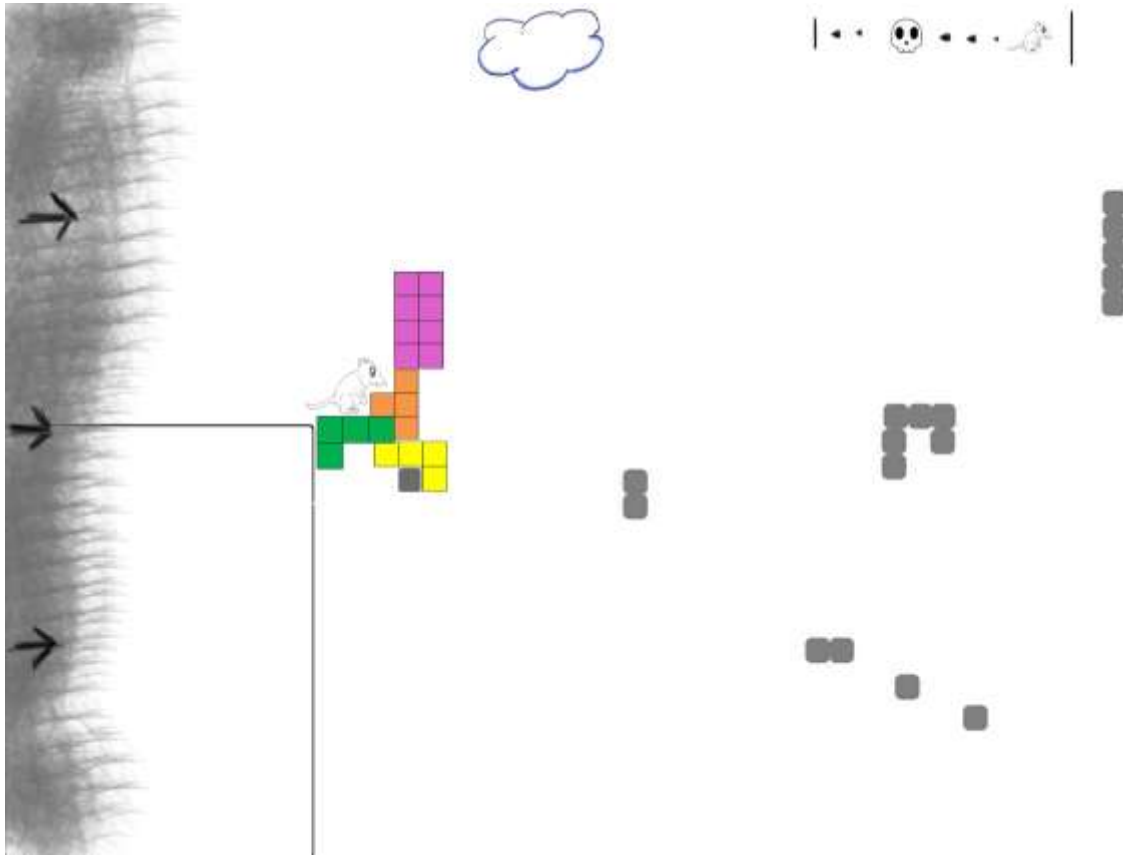


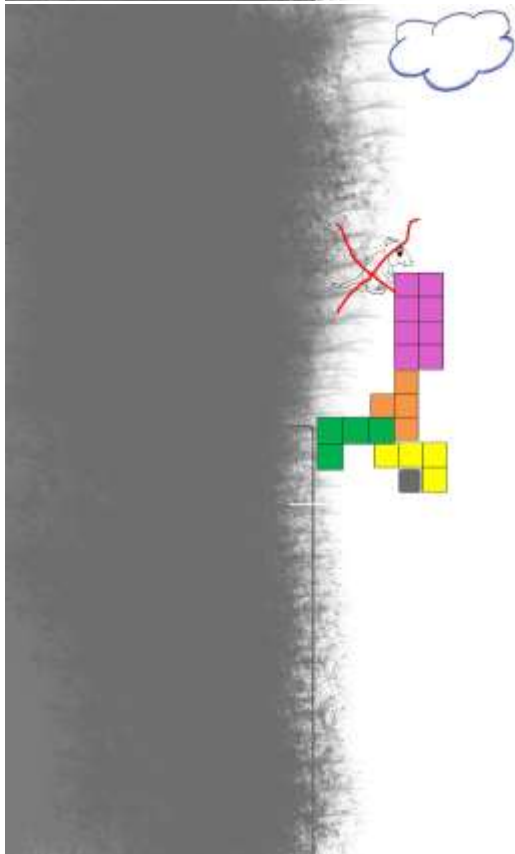
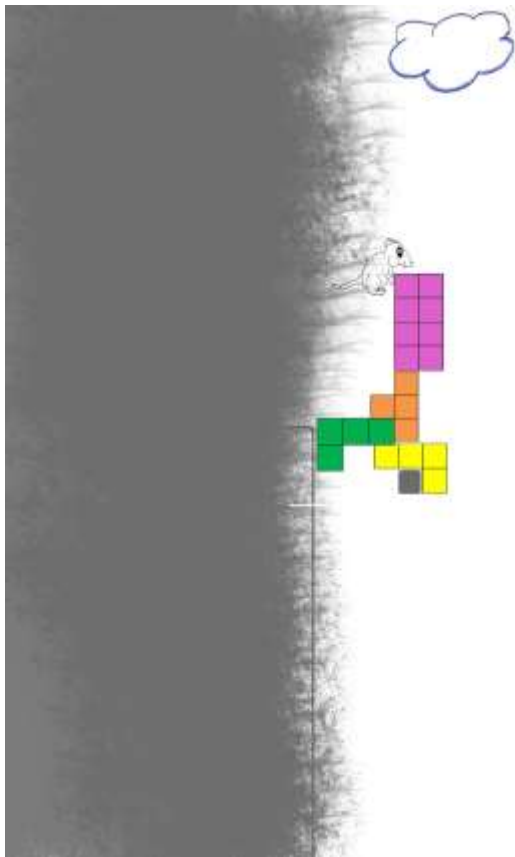
Bouncy Block



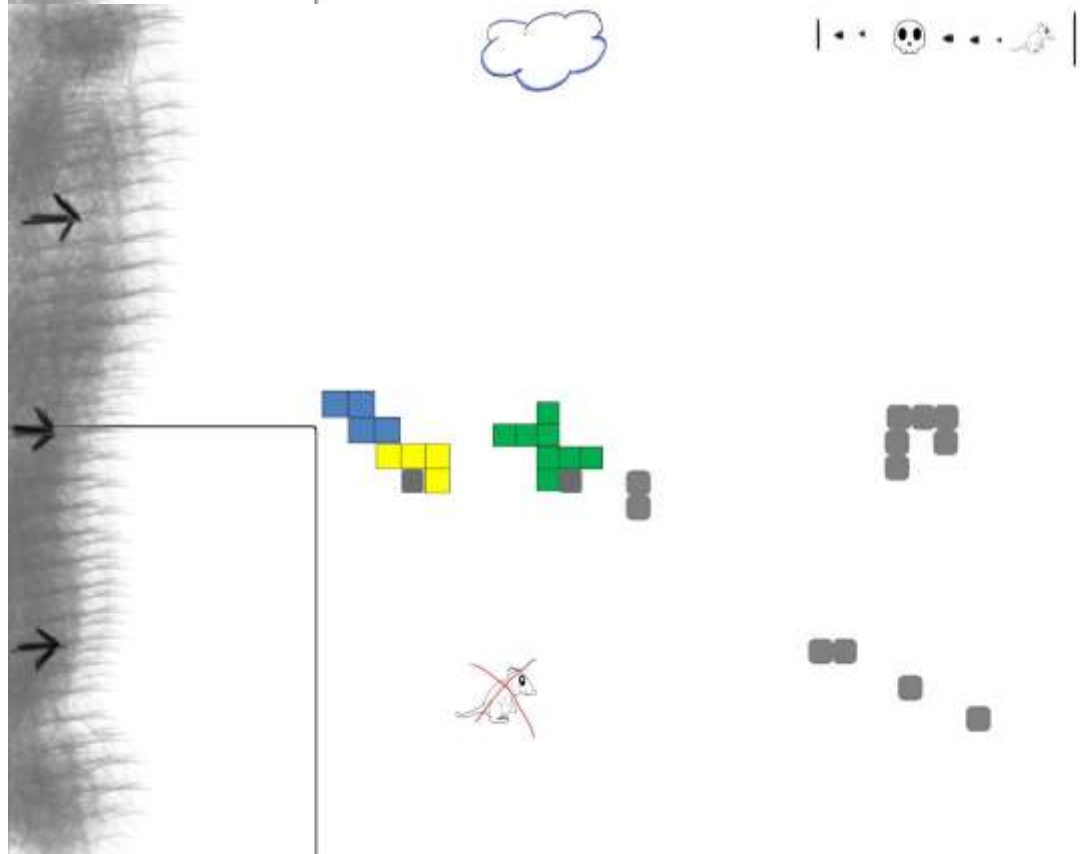
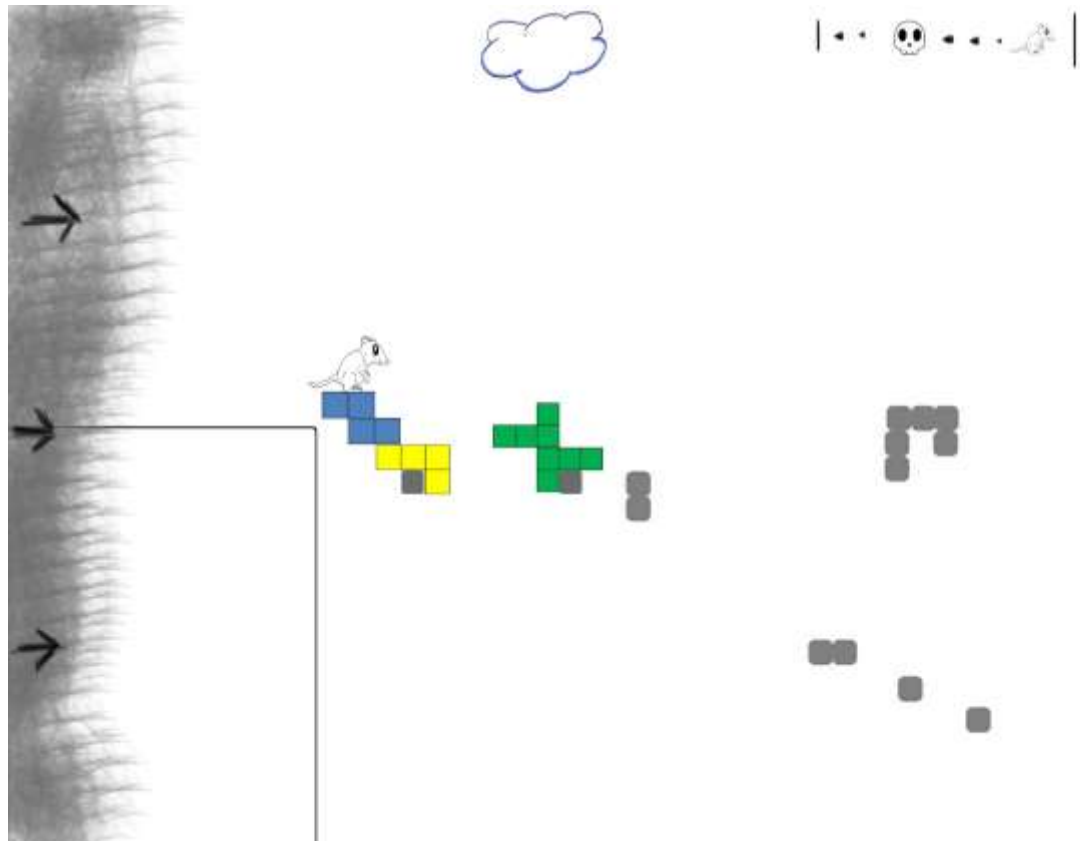


Death By Climbing





Death By Falling



Death By Squishing

