Vex

Vex is a simple platform game reminiscent of the arcade era. A humble cube though you are, you are tasked with overcoming dynamic obstacles and outsmarting malicious enemies to collect all the coins before reaching the goal! Although it's not an original concept, it takes the well-established and loved game structure from the 1990's, and updates it using a modern engine, with advanced mechanics.

Objectives:

- Collect all the coins before reaching the goal
- Reach the goal before the time runs out
- Complete each level as quickly as possible
- Avoid any traps or enemies from killing you
- Locate any hidden gems in the level



Each level is harder than the last, with each dimension being even harder than the previous one. This game aims to test your dexterity, logic, problem solving, patience, and agility. Here is some information to help you get started:

1 Enemies

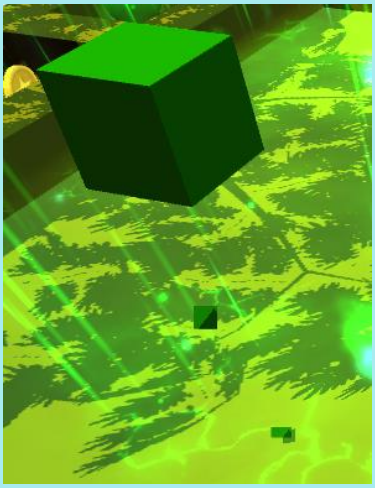
Entities:



- Patroller:
  - Move between 2 different points
  - Ignore the player
  - Lethal upon contact



- Sentry:
  - Move towards the player
  - Ignore their environment
  - Have a detection range of **14** units
  - Lethal upon contact
  - Sentry giants are 3 times larger

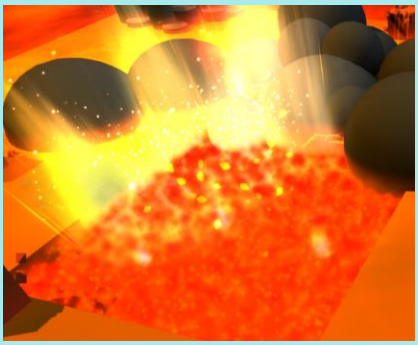


- Glider:
  - Glide between a number of points
  - Spew acid
  - Both the entity and acid are lethal upon contact

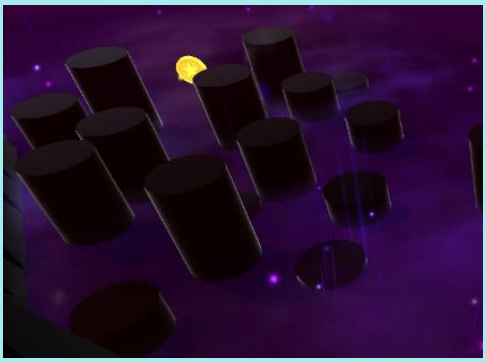


- Blasters:
  - Move towards the player
  - Non-lethal upon contact
  - Draw the player towards them, like a black hole.
  - Explode, causing the player to be propelled rapidly
  - Can respawn at a number of locations
  - Have a range of **14** units
  - Expand to **162%** normal scale before exploding
  - Slightly transparent (**23.14%** transparent)

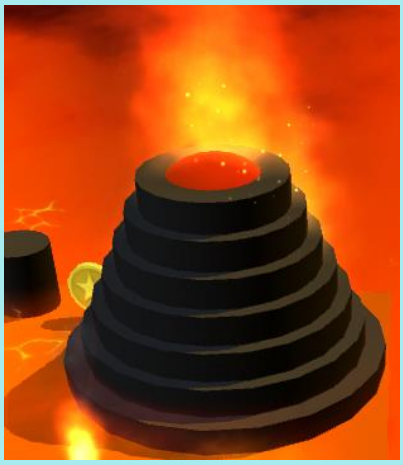
Objects:



- Lava Traps:
  - Lethal upon contact
  - Lethal to other entities too



- Grinders:
  - Move between 2 different vertical points
  - Lethal upon contact
  - Move up through the ground

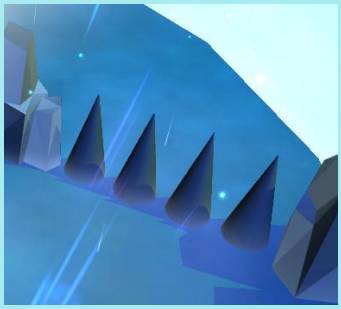


- Volcanoes:
  - Produce lethal pyroclastic rocks
  - The rocks are launched into the air, before crashing down to the map towards the location the player was at the moment the rock was erupted
  - Can destroy teleporters
  - Can destroy other entities
  - Randomly erupt within a **4** second time period

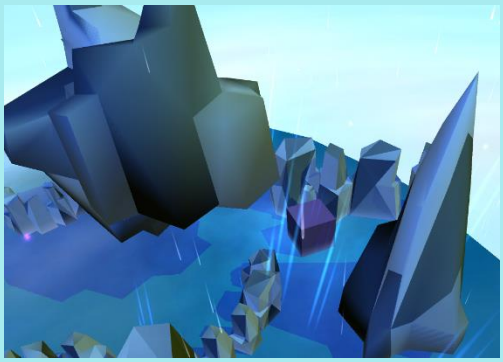


- Idols:
  - Move between 2 vertical points
  - When maximum vertical point reach, they rapidly crash down to the map, lethally crushing any player beneath it
  - Moves **20** times faster downwards than upwards.
  - Moves **4** times faster downwards when the level is complete.

- Spikes:
  - Move between 2 vertical points
  - Are non-lethal, but cannot be maneuvered so can result in player death
  - Move at **1** unit per second



- Rock falls:
  - Move between 2 vertical points
  - When maximum vertical point reach, they rapidly crash down to the map, lethally crushing any player beneath it
  - Moves **20** times faster downwards than upwards.
  - Moves **4** times faster downwards when the level is complete.



- Ice Discs:
  - Are non-lethal
  - Decreases drag, causing the player to slip around easily
  - Reduces control of movement



- Turrets:
  - Fire lethal rounds at speed **4** units per second
  - Have a range of **20** units
  - Can destroy teleporters
  - Can destroy other entities (except blasters)
  - Differ aesthetically between the Pura and Quanta dimension significantly



2 Collectables

Coins:

- Must be collected to complete the level
- Emit a faint gold particulate glow
- Spin slowly
- Vary in frequency per level



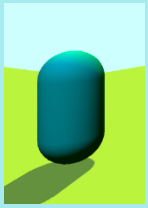
Powers:

- Cannot be used in conjunction with another power
- Last 10 seconds each before being depleted of energy

- Enlarger:
  - Increases player size by **80%**
  - Enables invincibility against all enemies
  - Causes player to emit large gold particles



- Reducer:
  - Decreases player size by **45%**
  - Causes player to emit small blue particles



- Accelerator:
  - Increases player speed by **266.67%**
  - Causes player to emit fast red particles



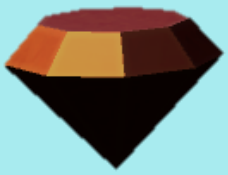
- Decelerator:
  - Decreases the speed of time by **40%**
  - Causes the player to emit slow orange particles



- Incorporealator:
  - Allows player to travel through walls and objects
  - Destroys any enemy within **5.5** units.
  - Causes the player to emit a silver misty halo



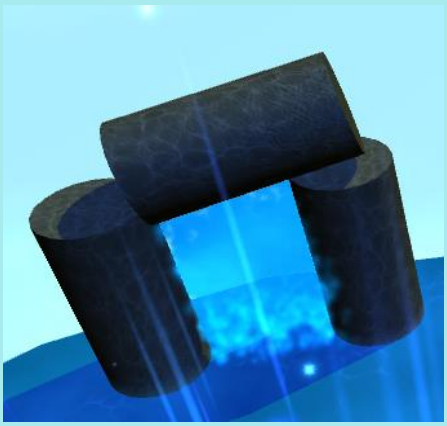
Gems:



- There are 3 Gems scattered around each dimension, giving 12 in total
- Very difficult to locate
- Once all are located and all 40 levels are completed, the 5th dimension, 'Iris', will be unlocked

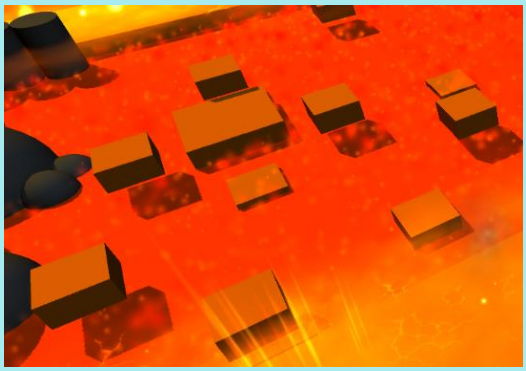


3 Mechanics



Teleporters:

- Transport the player to its pair portal
- Can be used an infinite amount of times
- Can be destroyed by turrets



Platforms:

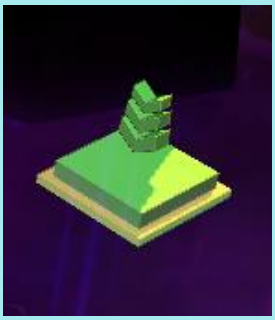
- Move between 2 vertical points
- Can move below lava, causing the player to die
- Don't cause player to die in Quanta dimension



Entanglement:

- Causes the player to switch to another player, but teleports it to a location relative to itself
- Previous player is struck by lightning, while the 'switched-to' player emits a purple-white explosive ring
- Only unlocked in the Quanta dimension
- Necessary to complete levels

Unlocks:
- Once pressed, reveal a hidden part of the map
- Are pushed down into the ground by the player



4 Miscellaneous

Dimensions:

- There are 4 main dimensions, with a fifth bonus dimensions:
  - **Pura**: Latin for 'Pure'
  - **Ignis:** Latin for 'Fire'
  - **Glaciem:** Latin for 'Ice'
  - **Quanta:** Plural of 'Quantum'
  - **Iris:** Latin for…

- Each dimension represents a different 'element' of the Vex universe (in the sense of the ancient meaning of the word element)
- Each dimension must be completed before proceeding to the next

Time:
- As the levels progress, the time allowed for each level increases.
- Pura: **{25, 30, 35, 40, 45, 50, 55, 60, 70, 85}**
- Ignis: **{25, 30, 35, 40, 45, 50, 55, 60, 70, 100}**
- Glaciem: **{35, 40, 45, 50, 55, 60, 70, 90, 100, 120}**
- Quanta: **{35, 40, 45, 50, 60, 70, 85, 100, 110, 125}**

You are granted unlimited time on the bonus levels.

Score:
- The score on each level is the time left when the level was completed
- The score for each dimension is the sum of the scores from each level within that dimension
- If the player completes a world with a certain minimum score, then the bonus level is unlocked. The minimum needed is: (maxScore/worldNumber) * 0.48. For example, in world 3, the maxScore is 665: (665/3) * 0.48 = **106.4**

5 Story

The story of Vex is a simple one.

Your world has become infected with the foulest of races in the universe – the Kikimaru. They wish to invade your realms, to harvest the resources, which power their intergalactic transportation systems. However, they have evolved with one weakness – if their territory is fully explored by their adversaries, they feel too threatened to continue inhabiting it, and will flee. Being the bravest of your species, you are tasked with adventuring through the 4 ancient realms, banishing the henchmen of the Kikimaru as you go.