

BEPPUS



Lemmings meets the platformer genre in a 2,5D world where the player gets to possess the minions.

Game Design

Core gameplay

You control a group of minions in a 2D platformer environment to solve puzzles by giving them commands or taking full control of an individual unit.

Design pillars

- Unit management
 - Micromanage a group of minions with individual tasks.
- Minion Control
 - Take control over a mindless minion to perform platforming tasks.
- Puzzle Solving
 - Solve interesting puzzles in order to beat levels.

Objective / Progression

Guide a group of X minions from the point of entry to the goal point. The final score of the level is based on the number of surviving minions that reached the goal point.

When one minion reaches the goal, the player may choose to complete the level, or they can gather more minions to the goal which results in a higher score.

Level Design

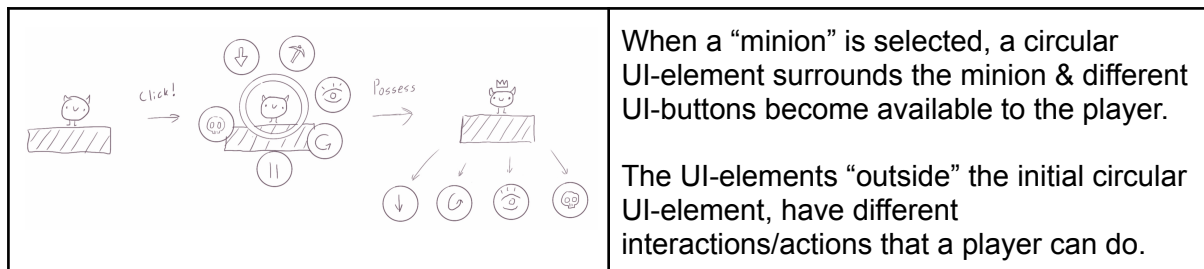
The levels are constructed in an enclosed 2,5D side-view environment. They include platforming challenges for the possessed minions, threats and puzzles. The game will have multiple linear levels that increase gradually in difficulty, as they introduce more complex puzzles with the existing minion mechanics.

HUD

UI

- [Button] Pause Menu
- [Button] Reset
- Time
- Minion count?

Selected Minion



When a “minion” is selected, a circular UI-element surrounds the minion & different UI-buttons become available to the player.

The UI-elements “outside” the initial circular UI-element, have different interactions/actions that a player can do.

The UI buttons will be located in the bottom of the screen both in the overview and possess mode. This is so that we don’t have to account for having a dynamic screen position for a “pie chart” when clicking a minion. However, when the player possesses a minion, the UI in the bottom adapts to the interactions that are possible. Each UI button has a corresponding key shortcut.

When you are in the overview mode, you can perform actions with the minions by either selecting a minion first and then a UI button / shortcut. Or you can select the UI button first and then click the minion to perform that action.

When you are possessing a minion, you may perform any action instantly by clicking one of the UI buttons, or a corresponding key for each one.

Minion HUD

- [Buttons] Actions
- [Button] Possess
- Minion Flux

Game Mechanics

Movement

Minion/Mob Movement

- Left & Right movement
- Jumping
- Interacting

Spectator Camera

- 4 Directional movement input using WASD

Interactions/Abilities

These are the interactions that the player can do with minions.

- Explode themselves
 - Can break destructible objects to form paths for minions.
 - Move things in the world, for example push an elevator upwards.
 - Breaks blobs and portals if they are within the radius.
- ~~Pull lever~~ (no general interact)
- Standing on pressure plates.
 - When a minion, a physics based object, or a blob presses the button down, an event is triggered in the world. Has 2 states, on and off.
 - If a minion explodes near the button, it is permanently left in the off state, and cannot be pressed down again.
- Moving smaller objects (rocks for example, physics based).
- Sacrifice themselves to become a portal/gate.
 - Minions can enter the gate if they overlap the gate and there are 2 gates in the level. When they do, they will spawn in the other gate.
 - The gates are mainly used to transport minions to other places in the level.
 - Players need to consider when and where they place the portals. For example, some areas might close down that the minions used to have access to. In that scenario, the minions can only go there by placing portals.
 - Portals only move vertically, and they are affected by gravity.
- Morph into a blob
 - The blob has more weight than regular minions, and can be used to push things down.
 - The blob collides with other minions, and can therefore be used as a platform to jump up on.
 - Is soft, other minions can land on it from any height without taking damage.
 - Blobs can collide with other blobs to form structures.
 - Blobs can only move vertically, and they are affected by gravity.

Player Mechanics

Minion/Mob Possession

An individual minion can be possessed by the player, allowing them to have full control over the movement and actions of that minion.

(While possessed, the minion will continually gain a “flux” stat over time. When the flux value of a minion reaches its max value, it melts.)

The flux increase rate of the minion is amplified each time the player possesses it.)

Minion Portal

While being in control of a minion, the player can opt to create a “**portal point**” **where the minion is currently standing**. When a “portal point” has been created, the player needs to take control of another minion & use them to **create a second “portal point”**.

By creating 2 “portal points”, those 2 minions **become used up** (As a player you have spent 2 minions/resources to create a portal) & can’t be controlled or called back.

To use the portals, the minion can teleport by walking into one of the portals. By doing so, the minion will appear at the other portal.

Minion Blob

When in control of a minion, the player has the option to **turn the minion into a blob**. By doing this, the minion **increases slightly in size, increases in weight** & can be used as a **platform by other minions** to reach higher ground or be **used as a soft landing pad**, making it able for a minion to fall safely from great heights.

By turning a minion into a “blob”, that minion becomes **used up as a “resource”** & can’t be called back, possessed or commanded.

Spectator Mode

In spectator mode, the player gains an overview of the current level & can move around using the WASD-keys. Also in this mode, the player can use their mouse to highlight/possess a minion by clicking on them & enter the “[Minion/Mob Possession](#)” mode.

Puzzle solving

To get past the puzzles, the player must plan how they spend their resources and what sacrifices they make. They also require basic logical thinking and creativity. Here are some examples of how we will use our mechanics to form puzzles:

- **Sacrificing:** Sometimes a minion must be sacrificed for the greater good, for example by dying on top of spikes so that the other minions can use its corpse as a bridge. The player must think ahead about which minion they sacrifice.
- **Possessing:** In many cases, the player will have to possess one minion in order to get to places that the others can’t. These actions will often include platforming challenges.

- **Responsible commanding:** When the minions are not possessed, they follow every command blindly, and will not hesitate to walk right into danger if the player directs them there.

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Floor Types

Light floor

Rule:

- Destroys on explosion
- Destroys if blob is on it
- Destroys if minion walks on it
 - With a delay (0.5s ?)

Medium floor

Rule:

- Destroys on explosion
- Destroys if blob is on it

Heavy floor

Rule:

- Can never be broken

Object Types

Light Objects

Rule:

- Can break light floor
- Can **not** break medium floor
- Can **not** break heavy floor
- Can **not** activate pressure plates
- Can be destroyed by explosions

Objects:

- Portals

Medium Objects

Rule:

- Can break light floor
- Can **not** break medium floor
- Can **not** break heavy floor
- Can activate pressure plates
- Can be destroyed by explosions

Objects:

- Minions
- "Moving" Traps

Heavy Objects

Rule:

- Can break light floor
- Can break medium floor
- Can **not** break heavy floor
- Can activate pressure plates

Objects:

- Blob
- Blockers

Minions

Rule:

- Can break light floor
- Can be exploded
- Can be morphed into blob
- Can be morphed into portal
- Will be destroyed by fall damage

Blob

Rule:

- Is created through Minions
- Can only move vertically
- Can be placed on top of each other
- Can be destroyed by explosions
- Can be destroyed by “moving” traps
- Can **not** be destroyed by “stationary” traps
- Can destroy light floor
- Can destroy medium floor
- Will remove any fall damage from any minion that lands on it

Portal

Rule:

- Is created through Minions
- Can have two in level at the same time
 - The first one spawned will be destroyed when third is spawned
- Can only move vertically
- Can not interact with buttons
- Can be destroyed by explosions
- Can be destroyed by “moving” traps
- Can **not** be destroyed by “stationary” traps
- Can destroy light floor

“Moving” Traps

Rule:

- Is either:
 - Medium
 - Heavy
- Moves between two positions
 - Can be deactivated with buttons
- Destroyed by Explosions?
 - Medium (yes)

- Heavy (no)
- Can **not** be destroyed by “static” traps
- Can **not** be destroyed by “moving” traps
- Can interact with buttons
- Can destroy Minions
- Can destroy Blobs
- Can destroy Portals
- Can destroy Light Floor
- Can destroy Medium Floor

“Static” Traps

Rule:

- Can **not** be destroyed by explosions
- Can **not** be destroyed by moving traps
- Can **not** destroy blobs
- Can **not** destroy portals
- Can destroy Minions

Buttons (XOR)

Rule:

- Activates whatever that is attached to it
- Can be destroyed by explosions
 - Will deactivate if button was activated
 - Can not be activated again
- Can be activated by
 - Minions
 - Traps
 - Blobs
 - Blockers

Door

Rule:

- Can not be destroyed
- Will change state if activated

Moving Platform

Rule:

- Can move in any direction between two position
 - Either by activation or
 - Constant movement
- Can **not** be destroyed
- Minions does not follow its path

Blocker

Rule:

- Can **not** be destroyed

- Can be activated by
 - Removing its support (something holding it up)
 - Button can remove something that supports it
 - Or Explode its support
- Can only move vertically by gravity
- Can destroy Minions **when falling**
- Can destroy Portals **when falling**
- Can destroy Blobs **when falling**
- Can destroy light floor when falling
- Can destroy medium floor when falling
- Can activate buttons

Elevator

Rule:

- Can move in any direction between two position
 - Either by activation or
 - Constant movement
- Can **not** be destroyed
- Can only move minions, portals and blobs
- *MOVING PLATFORMS INTERACT WITH BLOCKERS?*
 - Blocks the path

THE GOAL

Rule:

- Can be multiple goals in a level
- Can not be destroyed
- Will determine if win condition is met when every minion is off the map
- Will determine “star score” when puzzle is complete
- Can be selected with the move to command, just like a minion.

Interactable Objects

Things that can be moved or interacted with by other means, includes:

Rocks (physics based, can be pushed/dragged by minions)

Boulders (physics based, too heavy to be dragged but can be pushed with enough impact force)

Destructible meshes: Can be destroyed by explosions or high impact in general, for example gravel and planks.

- Explosions
- Fall damage
-

Weighted Pressure plates: As long as they are pressed down by something, a function is performed. For example opening doors, enabling/disabling gas pipes.

- Standing with a minion
- Blob
- Moving an object over the plate

Static Pressure plates: Activated once when a moving object passes over it. Can not get reactivated. Activated by:

- Standing with a minion
- Blob
- Moving an object over the plate

Piston Bridge: Expands when receiving a signal and contracts when no signal is applied.

Creates a walkable. Activated by:

- Pressure plates
- Exploding blocking object

Weighted elevator: Has 2 platforms that are connected by ropes, if a blob is placed on one of the platforms it will be pushed down, which - as a result - pulls the other one upwards.

Affected by:

- Blobs
- Other heavy objects

Moving platforms: Some move automatically while others are driven by certain inputs.

Things that can activate/deactivate moving platforms:

- Pressure plates
- Explosions
- Blob

Dying

Different hazards kill minions in different ways:

- Melting: The minion is completely annihilated, leaving nothing behind
- Exploding: The minion is completely annihilated.
- Being killed by physical means: The corpse of the minion is left in the world.

Hazards

Gas

Area hazard that applies poison/flux effect over time to all minions within it.

Spikes

Floor hazard that kills any minion that walks over it.

Kill Pit

Floor hazard that melts any minion that falls in it.

Saw Blade

A circular hazard that moves in a predefined line pattern. Instantly kills any minion that touches it.

Crusher

Big object that moves up and down, any minions caught underneath will be crushed.

High impact

Can be if a blob falls down on a minion, or a falling rock.

Environment Events

Falling Rocks

Causes rocks to fall down from the top of the level. The rocks go through obstacles and kill any minion that they touch.

Art

Setting & theme:

Demonic cave/castle. Cute creatures -- dark fantasy.

Sound

Music

SFX

Required Assets

- Lever
- Boulder (huge)
- Objective pickup

Future Ideas

Easy

- Rotating Planck: A solid beam that rotates 90° around its edge when a signal is applied. Rotates back to primary position when the signal is lost.
- Jump pad (on/off). Works on any movable entity.
- "Mario Switch" : A block that is activated when a minion bumps it with its head.
- Retractable spikes: spikes that can be switched on and off.
- Gate that can be locked and unlocked (vertical and horizontal)

Difficult

- Different Minions
- Water
- Mechanical elevator
- Wires and wired mechanisms
- Slippery terrain (like ice, causes minions to glide)
- Auto-turret: shoots at the nearest minion (on/off)
- Wind tunnel: pushes minions that are in front of it in its facing direction (on/off)

