**Elemental Fox**

# Game Description

Elemental Fox is a 2D platformer and puzzle game where the player needs to resolve puzzles and avoid enemies by using different forms and powers.

The player can change the appearance and the abilities of the character during the gameplay by interacting with an elemental obelisk to complete the level.

The player can access 5 elemental forms (fire, water, earth, air and neutral) each element interacts in a different way with the traps and mechanisms, also every element has a active and a passive ability:

* Passive ability: Will interact with the environment just by being in a given place
* Active ability: Will be used when the player presses **“E”**

The player can also carry one single object to complete the puzzle while he caries a object the player can not use his active skill.

While the majority of the traps and mechanisms will either permit the player to pass, kill him or make him lose some progress, some of them may reveal hidden paths or present different challenges. The traps and mechanisms can also be specific for an element or have different variants for every element.

Enemies will need to be either avoided or used as steeping stones for the player to progress, with the combat being non existent instead the player needs to outsmart or completely avoid the enemies.

# Character

## General

### Description

The general aspect of the character is that of a fox with two tails, with a black patch of fur at the end of each tail.

The character will have 5 forms with every form having different sprites, animations, stats and abilities.

### Animations

All animations will be split between body animation and tail animation, that can be played independent from each-other depending on the inputs from the player and the environment.

### Stats

The world is formed from small cubes and all the measurements will be in rapport with the cubes, for an easier understanding every cube will have the dimensions 1m x 1m.

The character hit box dimensions will be 1,8 m in length and 1,7 m in height, with the hole sprite taking almost a 2m x 2m in diameter.

Red: standard block 1x1

Blue: character sprite 2x2

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### Elemental Power

Elemental power is a passive ability that will affect the player, the environment or both.

### Elemental Ability

Elemental ability is activated when the player presses “E”

## Neutral

### Description

In neutral form the sprite will be that of a red fox with two tails, black fur present at the end of each tail, on the lower part of each foot and on the ears.



Animations:

* Walk – a running animation with the tails and ears flowing in the wind
* Jump – an animation where the fox quickly crouches ant then jumps
* Fall – an animation where the fox falls
* Idle – an animation where the fox stays idle
* Interact – (body only) an animation where the fox interacts with the elements of the environment, the fox interacts using her nose.
* Elemental ability – tail grab (tails only) an animation where the tails grab any object in front of the character

### Stats

Stats:

* Walk – 6m/s
* Jump – 4 m
* Falling – gravity applies normally

### Elemental Power

[Missing]

Neutral for has no elemental power

### Elemental Ability – Tail grab

The player has the ability to move small objects around the map. The objects will be picked when the player is near them, held behind the player and placed where the character is in the moment of the button press.

## Pre-transformation Neutral

### Description

Pre-transformation is the form that will be presented in the first half of the Level 1, having the same design as the neutral form but missing the second tail. Stats are identical with the neutral form missing the active and passive ability.



All animation will be made only for the single tail and will copy the animation from the Normal mode.

Animations:

* Walk – a running animation with the tails and ears flowing in the wind
* Jump – an animation where the fox quickly crouches and then jumps
* Fall – an animation where the fox falls
* Idle – an animation where the fox stays idle
* Interact - (body only) an animation where the fox interacts with the elements of the environment, the fox interacts using her nose.

### Stats

Same as Neutral form.

### Elemental Power

[Missing] – Pre-transformation Neutral has no elemental power.

### Elemental Ability

[Missing] – Pre-transformation Neutral has no elemental ability.

## Fire

### Description

In fire form the character colors change to a fiery red, with flames present on the tails and on the ears, with the sprites giving an agile aspect.

Fire fox is agile and powerful, firing a fire ball at the targets

Animations:

* Walk – a running animation with the tails and ears flowing in the wind (25% increase in the animation speed)
* Jump – an animation where the fox quickly crouches and then jumps
* Fall – an animation where the fox falls
* Idle – an animation where the fox stays idle
* Interact – (body only) an animation where the fox interacts with the elements of the environment, the fox interacts using her nose.
* Elemental ability (animation only for tails) – the tails flick towards the front of the character

### Stats

Stats:

* Walk – 8m/s / 25% increase in speed
* Jump – 6m / 50% increase
* Falling – gravity applies normally

### Elemental Power – Agility

Fire fox gives a passive bust to the speed (25% increase) and jump (50% increase), it is activated automatically once the player transforms and does not need separate input.

### Elemental Ability – Fire ball

The player shoots a fire ball from his tails, at the player level. The fire ball moves is the direction that the character is faces and moves at twice of the character (fire form).

A fire ball moves until it hits a wall or a mechanism, if it hits a mechanism then it will activate it.

## Water

### Description

In water form the basis tails are switch with fish tails that end in a fin, with the tails keeping the same length. The color of the body changes to a blue/dark blue, with water droplets permanently falling from the body and droopy ears giving the player the feeling that the character can melt at any time.

Water fox is nimble and can reach places that are impossible to reach to any other form, it can climb vertical walls

Animations:

* Walk – a running animation with the tails and ears flowing in the wind
* Jump – an animation where the fox quickly crouches and then jumps
* Fall – an animation where the fox falls
* Idle – an animation where the fox stays idle
* Interact – (body only) an animation where the fox interacts with the elements of the environment, the fox interacts using her nose.
* Elemental power – (body only) an animation where the character transforms the legs in a snail like foot formed from foam and bobbles.
* Elemental ability – (body only with the tails missing) a blob like sprite with half of the normal height, and with only the face as a distinguishable feature.

### Stats

Stats:

* Walk – 6m/s
* Jump – 4m
* Falling – gravity applies normally

### Elemental Power – Sticky feet

The character can walk on the walls by getting near them and holding the up/down button. It can also attach to walls while falling and jump directly from a wall.

### Elemental Ability – Shapeless

At the entrance of any crevasse the player can use elemental ability to transform himself in a liquid like form in witch can easily move through spaces that are inaccessible to the usual form.

## Wind

### Description

In wind form the character has a floaty appearance similarly to that of a ghost, with the lower part of the legs being translucent giving the feeling that the character floats above the ground, and the tails missing the base making them float near the character.

Wind fox is very light having the ability to give herself a boost mid jump or on terrain and can be moved around by the objects

Animations:

* Walk – a running animation with the tails and ears flowing in the wind
* Jump – an animation where the fox quickly crouches and then jumps
* Fall – an animation where the fox falls
* Idle – an animation where the fox stays idle
* Interact – (body only) an animation where the fox interacts with the elements of the environment, the fox interacts using her nose.
* Elemental ability (animation only for tails) – the fox spins her tails quickly creating a spinning blade effect

### Stats

Stats:

* Walk – 6m/s
* Jump – 4m
* Falling – 20% decrease in gravity

### Elemental Power – Helium body

The fox is more light so the environmental elements have a greater effect on it, it can be moved, push, bounced and flown around.

### Elemental Ability – Tail spin

Gives the player a dash that can be used while in air or on earth, the player needs to touch the ground before he can use it again, this dash also gives the player a little jump (2m).

## Earth

### Description

In earth form the character presents scales across the body, with the majority concentrated around the shoulder, rib cage and on the head forming a helmet, making the character appear hard and sturdy as a rock, but also a slow mover. The tails become covered in stone taking the aspect of a mace.

Earth fox is slow and sturdy, having the ability to ignore damage from specific traps and to move heavy objects around or break walls.

Animations:

* Walk – a running animation with the tails and ears flowing in the wind
* Jump – an animation where the fox quickly crouches and then jumps
* Fall – an animation where the fox falls needs a heavier feel as the character is more heavy
* Idle – an animation where the fox stays idle
* Interact – (body only) an animation where the fox interacts with the elements of the environment, the fox interacts using her nose.
* Elemental power
* Elemental ability (animation only for tails)

### Stats

Stats:

* Walk – 6m/s
* Jump – 4M
* Falling – 20% increase in gravity

### Elemental Power – Rock fur

It automatically ignores the damage produced by a large amount of traps.

### Elemental Ability – Boulder push

Once activated the player can push heavy objects around the map.

## State machine

State machine controls both the animation and the behavior of the character.

The character is split in 2 parts the **Tails** and the **Body**, witch can have different states, while some states are applied for both, while other states can be applied separately from each-other.

The character uses 2 concurrent state machines: Elemental State Machine and an Action State Machine.

**Action State Machine** is used to determine what are the actions of the character such as Idle/Walk/Jump.

**Elemental State Machine** is used to determine how the character looks, interacts with the environment and what passive/active is activated at any moment.

* **Idle state** is applied to both parts unless an Elemental ability state is active
* **Walk state** is applied to both parts unless an Elemental ability state is active
* **Interact state** is applied to both parts unless an Elemental ability state is active
* **Jump state** is applied to both parts unless an Elemental ability state is active
* **Fall state** is applied to both parts unless an Elemental ability state is active
* **Elemental ability – Neutral state** is applied only to the tails and overwrites any other states, ends only when the player selects elemental ability again
* **Elemental ability – Fire state** is applied only to the tails and overwrites any other states, ends after the animation finishes playing.
* **Elemental ability – Water state** is applied to the body and tails and overwrites any other states, ends when the player selects elemental ability again
* **Elemental ability – Wind state** is applied to the tails and body and overwrites any other states, ends after the animation finishes playing.
* **Elemental ability – Earth state** is applied to the tails and overwrites any other states, ends when the player selects elemental ability again or jumps.
* **Elemental power – Water state** is applied only to the body, it activates when the player makes contact with a vertical wall

### Action State Machine flow:

* Idle
  + Walk
  + Interact
  + Jump
  + Fall
  + Hurt
  + Elemental ability – Neutral
  + Elemental ability – Fire
  + Elemental ability – Water
  + Elemental ability – Wind
  + Elemental ability – Earth
  + Elemental power – Water
* Walk
  + Idle
  + Interact
  + Jump
  + Fall
  + Hurt
  + Elemental ability – Neutral
  + Elemental ability – Fire
  + Elemental ability – Water
  + Elemental ability – Wind
  + Elemental ability – Earth
  + Elemental power – Water
* Interact
  + Idle
  + Walk
  + Hurt
* Jump
  + Fall
  + Hurt
  + Elemental ability – Neutral
  + Elemental ability – Fire
  + Elemental ability – Wind
  + Elemental power – Water
* Fall
  + Idle
  + Walk
  + Hurt
  + Elemental ability – Neutral
  + Elemental ability – Fire
  + Elemental ability – Wind
  + Elemental power – Water
* Elemental ability – Neutral
  + Idle
  + Walk
  + Interact
  + Jump
  + Hurt
* Elemental ability – Fire
  + Idle
  + Walk
  + Interact
  + Jump
  + Hurt
* Elemental ability – Water
  + Idle
  + Walk
  + Hurt
* Elemental ability – Wind
  + Idle
  + Walk
  + Interact
  + Hurt
* Elemental ability – Earth
  + Idle
  + Walk
  + Interact
  + Jump
  + Hurt
* Elemental Power – Water
  + Walk
  + Jump
  + Fall
  + Hurt
* Hurt

### Elemental State Machine flow:

* Pre-transformation
  + Neutral
* Neutral
  + Fire
  + Water
  + Wind
  + Earth
* Fire
  + Neutral
  + Water
  + Wind
  + Earth
* Water
  + Neutral
  + Fire
  + Wind
  + Earth
* Wind
  + Neutral
  + Fire
  + Water
  + Earth
* Earth
  + Neutral
  + Fire
  + Water
  + Wind

## Controls

### Mouse and Keyboard

A/D – Left/Right

W/S - Up/Down

Space – Jump

E – Interact / Elemental ability

Esc – Menu

### Controller

Left stick left/right – Left/Right

Left stick up/down - Up/Down

A – Jump

Y – Interact / Elemental ability

B – Menu

# Camera

## General

Camera will have 4 areas areas with the character being placed in the middle:

1. White area – the player can move around in the white area, the camera will not follow the player or change positions

* Camera speed – **0m/s**
* Range – 60% of the screen

1. Green area – once the player enters the green area camera will slowly move towards the player

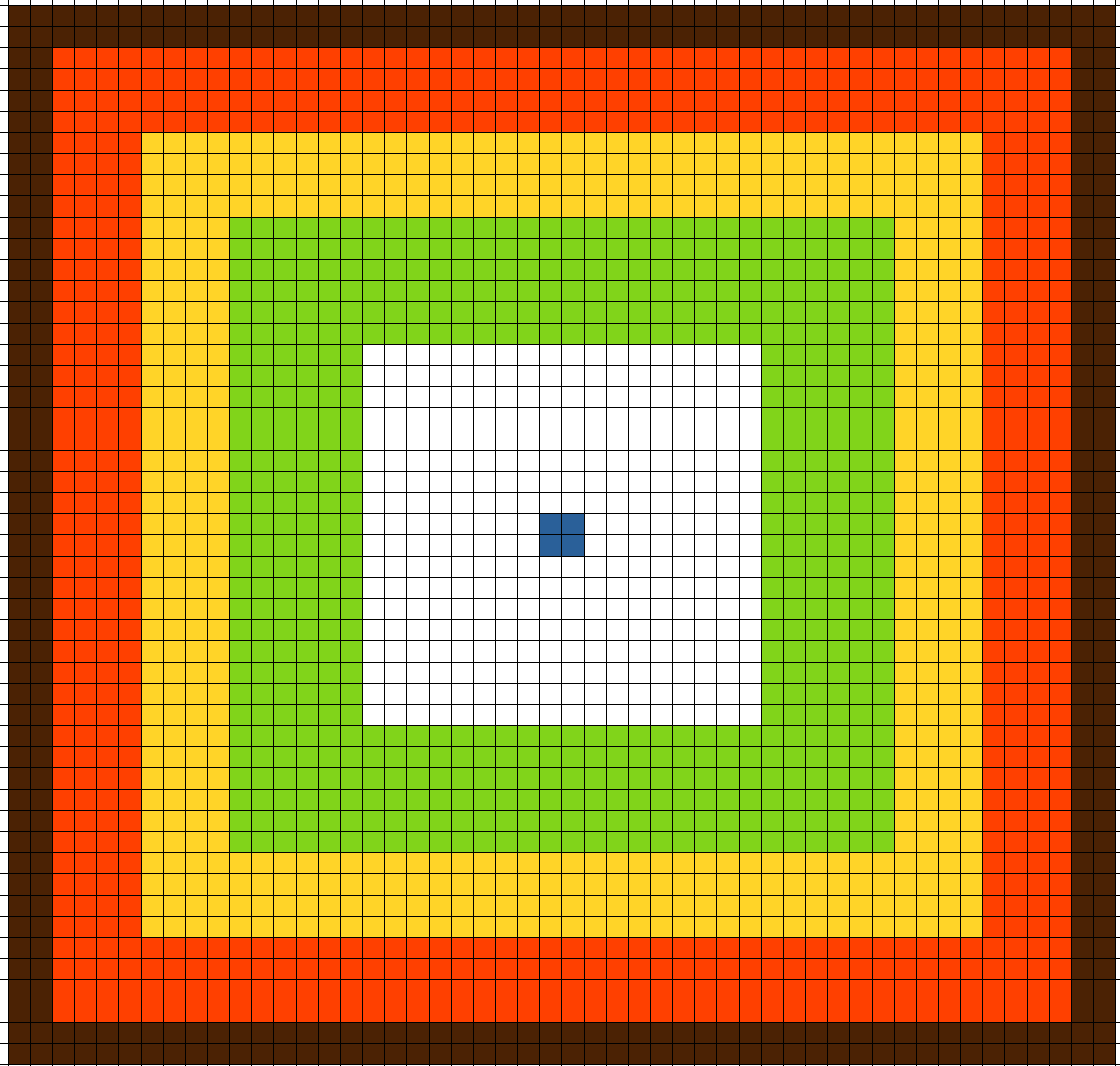
* Camera speed – 4**m/s**
* Range – 25% of the screen

1. Yellow area – once the player enters the yellow area camera will move towards the player

* Camera speed – 8**m/s**
* Range – 10% of the screen

1. Red area – once the player enters the red area camera will move rapidly towards the player
   * Camera speed – 10**m/s**

* Range – 5% of the screen



## Camera Effects

# Environment

## Levels

### Level 1 – Ancient Forest

The first level serves as a tutorial and an introduction of the game world being one of the shortest levels in the game, also teaches the player controls, avoiding obstacles and activating mechanisms and introduces the layer to the lore of the game.

Level theme is that of a European rain-forest with lush and green moss, crooked trees with moss on their branches and a slight mist that covers the background tiles.





After the game starts controls are presented in a similar mode to Noita where the controls appear in the background but are easily observed by the player. The first hint (Move – WASD) appears right as the player opens the level, the next hint (Jump – Space) will appear right before the player is forced to perform a jump, the third hint is placed where the player needs to interact with the great altar **(TBD – power being infused, animations and effects)**

### Level 2 – Tree base

## Enemies

## Mechanisms

### Obelisk

The obelisk



### Altar

The altar is a mechanism found at level 1, when interacted with will trigger a cut-scene where the player is infused with elemental energy and transformed into the neutral form. Altar can be interacted only once starting the cinematic.

The altar has the shape of a half pyramid with the altar on top of it and surrounded by four (non intractable) Obelisks each one of them having a different element represented, with lush moss, branches and wines growing all around it, and a light ray shining in the middle of it.



Altar background



Altar

### Burning block

Burning block is a piece of wood that can be light up and destroyed using Fire elemental ability

### Info stone

A stone that provides the player with hints and information's, will light up when the player is near it.

### Broken Obelisk

A obelisk that is heavily damage, the player can not use this obelisk to transform.

### Trigger

A trigger for animations and events

### Moving platform

A platform that moves on a predestined path

### Bouncy sap

Bouncy sap will launch the player up when coming in contact with it

Total jump = Player jump + 4 M.

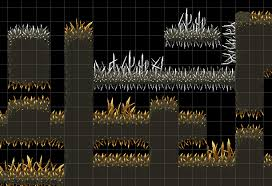
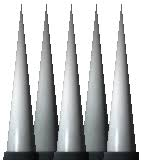
### Fan plant

Fan plant will push the player using wind 10m or until the player meets the first obstacle. Fan plant uses wind to move the player, wind will be blocked by any block in between fan and the player.

## Traps

### Spikes

Spikes are a fully stationary trap that will damage the player every time he steps on it. The spikes can be placed on floors, walls and ceilings.



Spikes can have different sprites based on the on the map:

* sticks
* wood

### Retractable Spikes

Retractable spikes are a variant of the normal spikes that will retract and then push out on a set time interval. The player can safely cross while the spikes are retracted and gets hurt while they are pushed out.

### Long retractable spikes

Identical with the retractable spikes but twice as long.

### Trigger spikes

Trigger spikes are a variant of spikes that will stay hidden until the player gets closer and then will activate.

### Crumbling block

Blocks will break after 5 seconds from when the player steps on it.

### Dropping leaf

Dropping leaf has the same behavior as the Crumbling block but instead of disappearing it will shrivel and after 4 seconds will regain power and return to the original form.

### Cloud block

Cloud block is a block that only the wind form can interact with it, if any other form tries to touch/stand on the block, it will simply pass through. When the player interacts with the wind form then it will behave like an ordinary block.

### Cloud crumble

Is a combination between crumbling block and cloud block in witch only the wind form cand interact but after a short duration the block will vanish making the player fall. The block will reform after a few seconds.

### Shallow water

A small layer of water, only affects the Fire element.

# Combat

## Health

# Economy

# Interface

## Start Menu

## UI

## Pause Menu

# Graphics and sound

## Graphics

## Sound