

(Demo) Susmanis' Journey Physics Puzzle Based Challenge

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ABSTRACT

Help the “Susmani” to survive during their journey. The “Susmani” are a nomad race that is searching for a perfect home.

Be the “hand of god” that will help the “Susmani” to achieve their goal.

Author Keywords

Puzzle Solving; Physics; Game; iOS

Introduction

The player must explore the world by its branching individual levels. To traverse each level the player must make use of Susmani's two main abilities. The first allows building different kinds of structures to surpass the different

kinds of dangers and obstacles in their way and the second allows the Susmanis to traverse through places that previously would kill them (like the power to swim, for example). To be successful in a level the player must reach one of the several ending points.

Currently the abilities related to the structures we have planned are the ability to increase the density of part of the structure (more weight), the ability to decrease the density of some parts of the structure (to counterbalance weight), to increase the friction of part of the structure and to stick part of the structure to walls and floor. The currently planned abilities to traverse the terrain are swimming (to pass through water) and glowing (to pass through the dark caves).

The Susmanis are a really attached family, they can't survive on their own. So the player can't leave a Susmani's alone, if they do he will eventually die, if he is too far from the rest.

A video with a trailer of the game can be found here:

<http://www.youtube.com/watch?v=4M37yY00QnY>

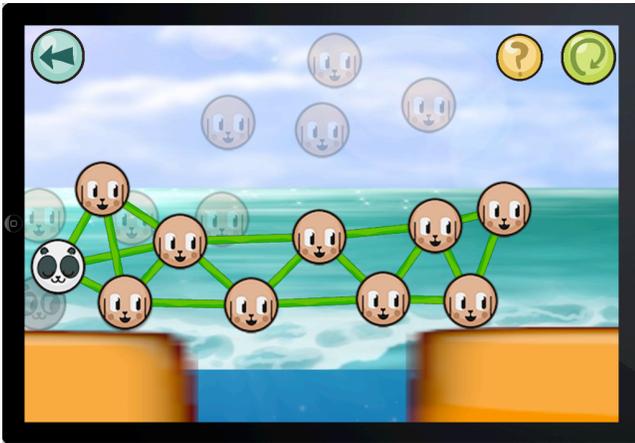


Figure 1. Susmanis' Journey level example. Building a structure.

FEATURES

- Explore colorful levels with different environments including jungles, caves, deserts and more.
- Create complex structures using their abilities throughout the levels.
- Battle the forces of nature to insure the Susmanis survival.
- Various ways to solve each level. Discover the one most suited to you.
- Various physics based challenges.
- Receive higher rewards depending on how many Susmani survive each level.
- Unlock new levels and Worlds.

GAME OBJECTS

The following is a list of logical objects currently used in the game:

- Platform - the floor to walk on.
- Wall - A wall.
- Endpoint - the places where the level ends.
- Camera - Moveable 2D camera.

- Spikes - don't let the Susmanis touch them.
- Water - Susmanis can't Swim.
- Ice – Most Susmanis will slide on ice.

The only characters the player will interact with are the Susmanis that will be controlled to form structures to reach the different parts of a level.



Figure 2. Susmanis' Journey level selection screen.

USER INTERFACE

- Startup Display - The startup display will consist of an initial cartoon-like screen with a button to start the game.
- Level Selection Screen - This screen acts as a level selection menu and a visual representation of the player's progress.
- Game Mode Screen - GUI elements on the main game screen are as follows:
 - Button to go back to the level selection screen;
 - Button to restart the level;
 - Button with some help hints;
 - Button to undo the last move.

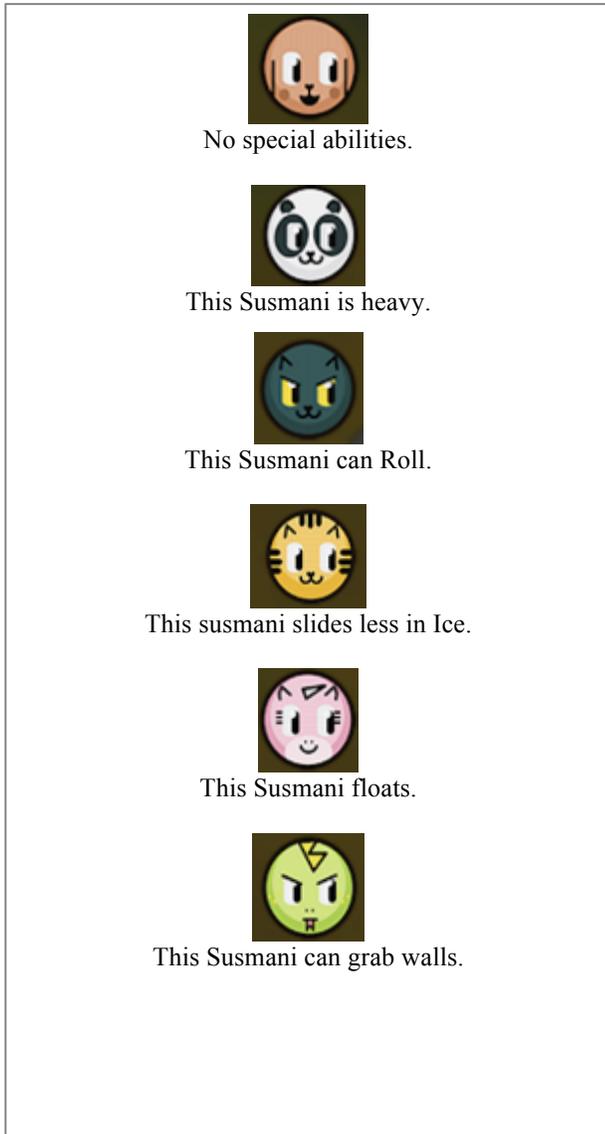


Figure 3. Susmani's types

GAME AUDIO

The game has Background music throughout the game. In the future this music will be changed to be more suited to the level the player is in, depending on the environment of that level.

Besides the background music there are as well some in game sounds to improve the game experience:

- Connecting sound – the sound when the player connects a Susmani to another Susmani;
- Disconnecting sound – the sound when the player disconnect a Susmani from the structure of Susmanis;

- Help sound – A cry for help when a Susmani is left alone;
- Dying sound – when a Susmani dies he will cry bye before disappearing.

PHYSICS

This game needs a physics mechanic based on physics law and gravity. The behavior of the objects in game will be dependent of the gravity of the world. If the object is heavier it will fall faster, than if its lighter, or it can even ascend if its density is lighter than the “air”. Besides the gravity, and because the objects will have different properties, they will react differently when in contact with different objects.

UNIQUE SELLING POINTS

- Susmani's Journey is a game somewhat similar to the known game “World of Goo”, but with a new and innovative idea, that allows the Susmanis to have different abilities so they can surpass the dangerous along the way, and besides that the Susmanis are not stuck to any part of the level.
- A lot of different scenarios, each one of them with different environments.
- Each level is different and challenging, and can be solved in different ways, depending on the player game style.

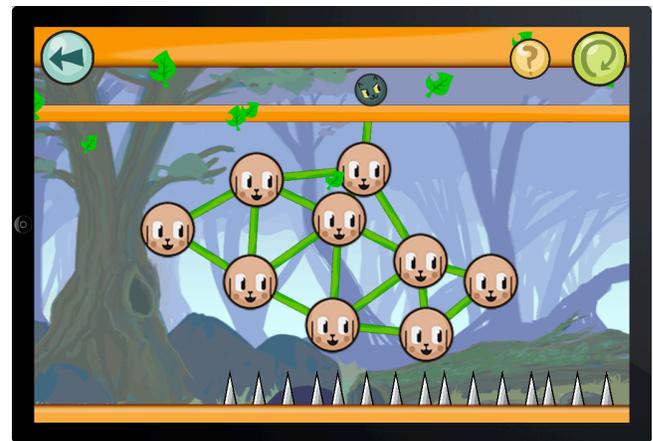


Figure 4. Susmanis' Journey level example. Moving with wind.

PUBLIC TESTS

After developing a beta version for the game we decided to test a few parameters in which we were unsure, namely the

difficulty spike between levels and if the proposed platform would not prove an additional challenge for the player.

After analyzing the results we found that the game has a steep learning curve so we need to improve the tutorial levels and that the mobile platform had the slight

inconvenience in which the player's finger sometimes blocked his view of the Susmani he was moving. We also got a lot of feedback and suggestions regarding the game and the general impression that the players, especially when they had finished learning how to play correctly, had a fun experience with our game.