

moving MARIO

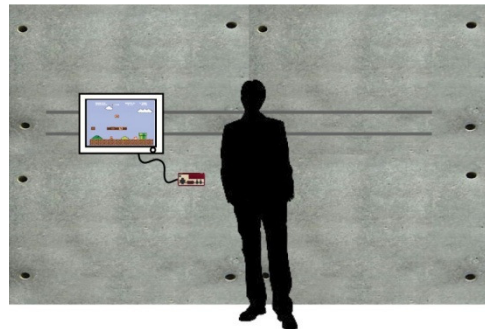
Moving Mario

by Keith Lam (aka theDemos)

Abstract

Over the years, the development of video games is trying its best to produce the virtual reality experience which getting closer to the reality. By changing the interface, from Atari's joystick to Analog Vibration of PS2 joystick, then Gun Shape controller for shooting game, and Dance Mania's floor controller to Wii wiimote, video game design is creating more and more "physical experience" for the players. Players now can actual smash and swing to play the game, but we are still playing the games in a 2D virtual environment: manipulating the character in an unlimited virtual space in a fixed static limited real world.

Moving Mario is definitely not reproducing Super Mario Bros in another way. By grabbing partial concept and some of the key elements behind the TV game development, Moving Mario is trying to challenge some of the traditional game elements. Throughout the gaming process, players can rethink the relationship between the player and the game.



Moving Mario

-Fascination with the original, rethinking the original

I) Scrolling Game Mechanism

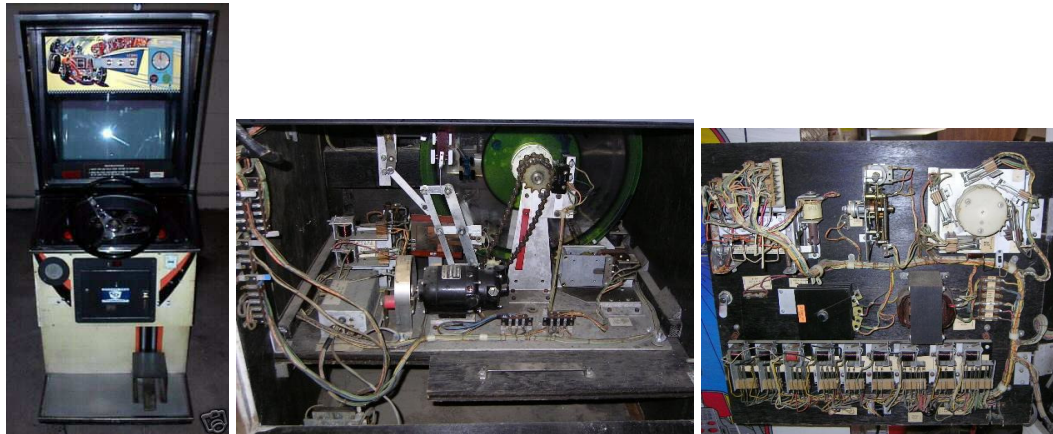
A popular example of Scrolling game, Super Mario Brothers, the first scrolling game of NES gained huge success; player controls the movement of the character with the joystick. One may experience through moving one's body in order to make Mario moves faster, or even jump at the same time while Mario has to jump. While playing the game, player and Mario seems acting two become one, the physical movement and emotions of a player is actually 100% devoted into the virtual environment.

The player is actually scrolling the "the background of the game" rather than controlling the left-right movement of the character. Take a very simple example: car-moving in the old movies. The car stays still while the background is actually keep scrolling. For this technique, we called it "Parallax" in the computer game development. Key character keeps as the centre point in the environment; except at the beginning and ending of the game, and some special cases). In fact, key character will never move. What the player controlling is the "moving" or "scrolling" of the game background and various game layers (different objects in the game).

Take another example: *[please refer to the video]*

When you are trying to move Mario to the **RIGHT**, in this scrolling game, you are not moving the Mario but actually scrolling the background/platform to the **LEFT** instead;

Vice versa, when you are trying to move Mario to the **LEFT**, in this scrolling game, you are not moving the Mario but scrolling the background/platform to the **RIGHT** instead.



***Reference 1:** Chicago Coin Speedway (1969), scrolling the slide (background)

Chicago Coin Speedway is a console game in 1969. The console games at that time are mostly move game object in a physical way. The mechanism of Chicago Coin Speedway is similar to Super Mario: character in the middle and background scrolling. Player is scrolling the background but not moving the racer. This is the early concept of background scrolling / side-scroller.



***Reference 2:** Bally Road Runner (1971), moving the car physically (the game object)

Bally Road Runner in 1971 is another console game with mechanical control. Bally Road Runner has a fixed background while the racer is moving.

II) Moving the Mario

This work consists of basic set-up only: there isn't any side-scroller or background scrolling. **Moving Mario** is actually demonstrating the mentioned concept and set up a platform for players to visualize this concept while participating in it. Let's move the Mario!

Since Mario HAS to stay in the middle (since it's a side-scroller, or say scrolling background), the whole TV set has to be moved, as well as the player (due to limited length of the control panel). This is the key concept of this side-scrolling game. This is something that people tend to/used to over-look and this work is trying to demonstrate this concept from another point of view.

And then, instead of scrolling the background horizontally, lets simply change the game mechanism to another way:

When you are trying to move Mario to the **RIGHT**, in Moving Mario, you are moving Mario to the **RIGHT**;

When you are trying to move Mario to the **LEFT**, in Moving Mario, you are moving Mario to the **LEFT**.

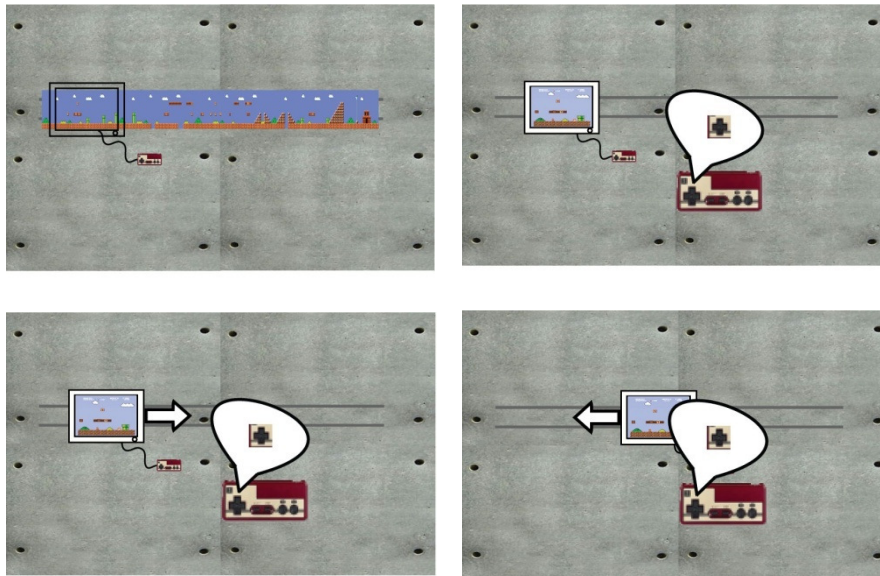


Fig.1 Moving by the control

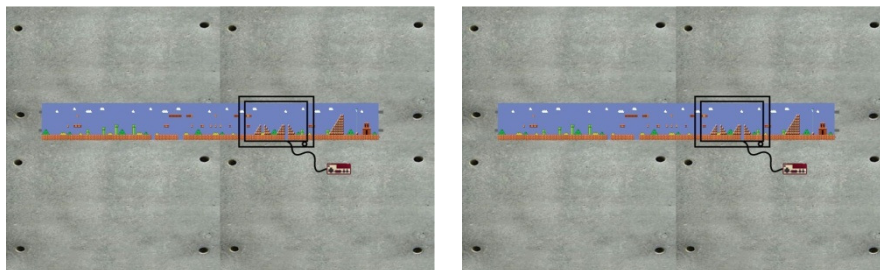


Fig.2 Moving on the scene
(mechanism behind)

III) Mechanical conversion: playing with the original video game elements

Moving Mario is also exploring two more aspects of TV game at the same time:

- 1) **Transferring virtual movement into real world movement** and
- 2) **Layering**

- Transferring from virtual into real

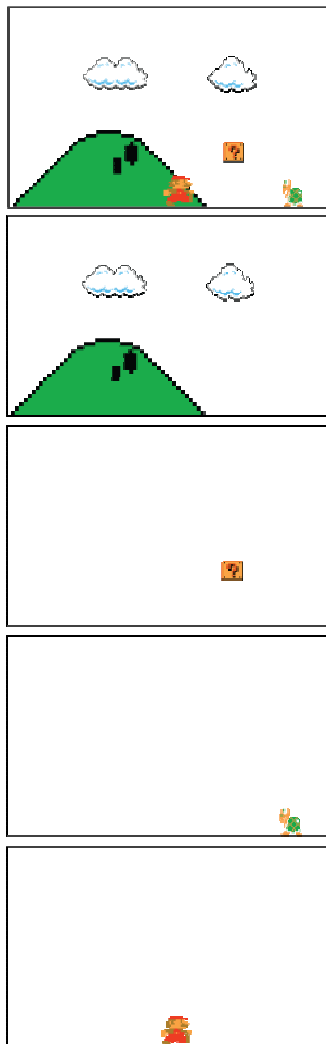
Usually, we are moving the key character in the virtual space while we are playing the game in a fixed static limited real world.



Fig.3 World 1-1, Super Mario Bros Whole game scene

Moving Mario is modeling the background of game scene (World 1-1). It is not trying to extend the virtual space but demonstrating the whole original scene instead. By using wire to connect the game controller with the TV case, player needs to walk in order to play the game.

By making the virtual game environment to a real set-up, **Moving Mario** is transferring the movement of virtual character (Mario) to the game player.



- Layering: exposes the mechanism of game layer

Basically, this kind of video game - scrolling game background consists of four layers (in general).

1. Character
2. Background
3. Game objects 1
4. Game objects 2

To display the mechanism of layering (pattern), **Moving Mario** deconstructs the game layer and converts it in a mechanical way. By playing **Moving Mario**, player is moving the "TV" instead of moving Mario. Except the game objects, character and background layer never has its location be moved. (For example, even the character/Mario is jumping, the character is just jumping up but not jumping forward.)

- Fig.4.1 Background layer (part of)
Fig.4.2 Game Objects 1 (non-move object)
Fig.4.3 Game Objects 2 (moving object)
Fig.4.4 Character

More Information

Page:

<http://www.the-demos.com/movingmario/moving-mario/>

Video (Youtube):

<http://www.youtube.com/watch?v=FXdifR7s1vA>

Video (High Quality):

http://www.the-demos.com/movingMario/movingMario_s.mov

Flickr Page: movingMario Set:

<http://www.flickr.com/photos/thedemos/sets/72157602992739796/>

**** Moving Mario is originally commissioned by Microwave International New Media Arts Festival 2007, under the programme 'Project Room', Curated by Joel Kwong.**

Award:

Honorary Mention, Interactive Arts, PRIX Ars Electronica 2008

1st Exhibited

Nov 2007, Microwave International New Media Arts Festival 2007

Exhibitions:

Sept 2008, Cyber Arts 08, OK Center for Contemporary Arts, Ars Electronica Festival 2008 (Linz, Austria)

Sept 2008, Split Film Festival (Split, Croatia)

Credits

Keith Lam (Artist, Concept, Electronics)

Joseph Chan (Mechanic Design, Electronics)

Joel Kwong (Curator)

*Special Thanks **Mr. Yim Chun Pang**, founder of *Blue Tongue Entertainment* for giving references the concept of TV game development, game history and process of game design.

References / Extended Readings

Side-scroller: http://en.wikipedia.org/wiki/Side-scrolling_video_game

Parallax Scrolling: http://en.wikipedia.org/wiki/Parallax_scrolling

Platform game: http://en.wikipedia.org/wiki/Platform_game

Rally Roadrun: <http://www.marvin3m.com/arcade/roadrun.htm>

Chicago Coin Speedway: <http://www.marvin3m.com/arcade/cspeed.htm>

Pac-Man in Human: <http://japanese.engadget.com/2005/12/21/real-pacman-u-michigan/>

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