

# SUPER MARIO RUN VER. 3.0.13

## CHARACTER CONTROL, FUNCTIONALITY, AND ATTRIBUTES

Overview: Explain and define current functionality for Super Mario Run World Tour by detailing the character control, and character attributes for the main playable character.

### BASIC FUNCTIONALITY

One of the obvious challenges to mobile games is creating functional game play with limited or restricted input options. The complexity grows even more when the expected game play functionality occurs within levels that are like those in traditional Super Mario Bros. platformer games. The goal of each level is to complete a run from start to finish while also collecting various forms of coin currency within an allotted amount of time. Each run and the amount of coins collected per that run are catalogued on a leaderboard system that the player can use to try and beat their own current standing rankings or compare with a friend.

### AUTORUN AND BASIC JUMPING MECHANICS

With Super Mario Run, the player character navigates through each world level from left to right and runs automatically without the ability to turn around or run backwards. The autorun function will also include an auto jump over small barriers, small gaps, and over mobs. To add player control, the user simply taps the screen to denote when the character should jump. The player is also able to control their character's jump height by prolonging the amount of time the player holds down their tap. The longer the player taps, the higher the player character will jump.

Environmental obstacles also provide the ability to enhance jump mechanics, as demonstrated in Fig. 1 below. In this example, two pipes are utilized to help manipulate the direction the player character will go depending on their jump input.

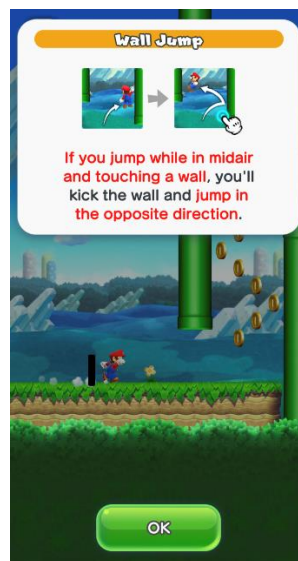


Fig 1. Demonstrates how environmental props can affect jump and player direction.

## OPTIONAL EASY MODE

Each level of the World Tour Mode will display an “Easy Mode” option prior to launching the level. In Easy Mode, the player has an infinite amount of time and an infinite amount of bubbles. Bubbles provide the player the ability to back track through their current run and select a point to start the run over again. This mechanic also is included in the normal mode of the game, but with a limited number of bubbles accessible to the player.

Another assisted aspect of Easy Mode is the Jump Bar, which provides the player visual cues on the height of their prospective jump. This meter is located behind the player character and measures the player’s tap input while also supplying a visual indicator of that input. Once the meter is full the player character will reach full jumping height.



Fig 2. Displays the position of the Jump Meter when Easy Mode is enabled.

## ADVANCED INPUT FUNCTIONALITY

Some legacy functionality from the previous Super Mario Bros. platformers has also been included to help the player manipulate their level run. The way the player interacts with the various types of mobs can affect and manipulate the player character as an assist to solving some of the various puzzles found throughout each level. A few of those interactions are listed below:

- Timing jumps to land on mobs is a legacy aspect of the flagship IP and is also included in Super Mario Run. When the player jumps and lands on certain types of moving mobs, such as Goombas, this will grant the player an instant boosted jump.
- Jumping on Koopa Troopas will allow the player to manipulate their shell on impact, which causes the shell to move in the defaulted right direction at a higher speed and can clear enemies or interact with environmental props and triggers.

Tapping while also in mid jump can also manipulate the player character in certain ways. For the default playable character Mario, this causes an animation to occur in which Mario does a slowed 360 rotation mid jump.

## POWER UPS AND MODIFICATIONS

Each level of Super Mario Run: World Tour have an assortment of environmental props and triggers that can also manipulate the environment and player character. A few of those aspects were mentioned in previous areas of this document, but this area serves to provide a bit more detail as well as providing a few more examples and a more detailed view of some of the manipulative blocks found throughout the world.

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### DEFAULT INTERFACE POWER UPS

#### BUBBLES:

A limited number of Bubbles are provided in the normal mode of World Tour, or in an unlimited amount in Easy Mode (Fig. 3). Bubbles are displayed on the HUD (Heads Up Display) in the upper left portion of the screen next to the Pause button. When the player interacts with a Bubble their player character is then surrounded in a protective bubble. The bubble then automatically moves backwards through the level until the player taps the bubble again to release their player character. Bubbles also automatically occur when the player falls down a pit or is defeated by a mob.

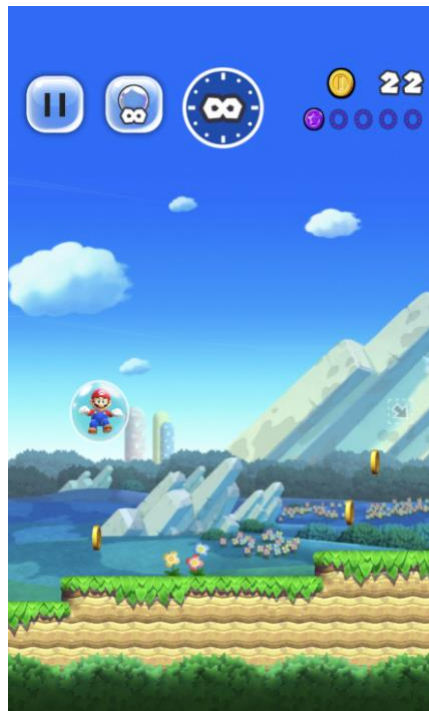
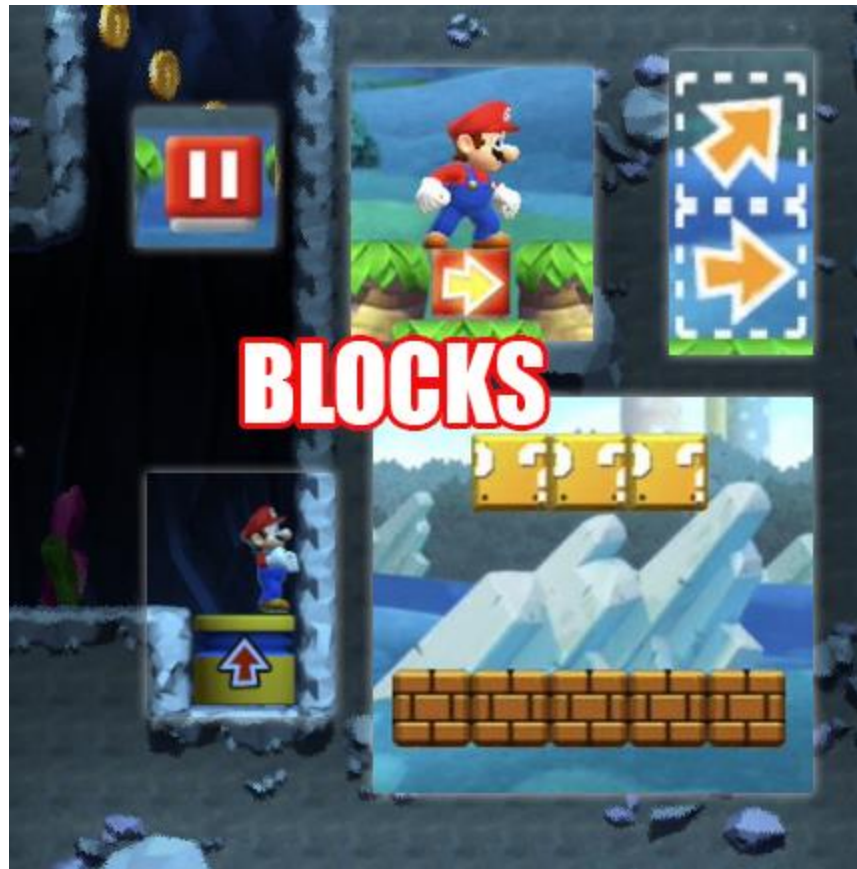


Fig 3. Mario inside a Bubble in Easy Mode.




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## BLOCKS

### BRICK BLOCK:

A brick block is the most common interactable block found in all levels. A Brick Block is destroyed when the player character jumps into the block from below. Some bricks will provide a power up to the player upon its interact.

### ? BLOCK:

A ? Block is a block that provides a power up that can be random or predetermined on player interact.

### PAUSE BLOCK:

When a player character runs over a Pause block the level timer will pause and the character will stop moving. On trigger, the block will then change appearance to a glowing arrow.

### DOTTED ARROW BLOCK:

A dotted arrow block is activated when the player character runs through it. When triggered a row of coins are unhidden to the player.

### ENHANCED DIRECTIONAL JUMP BLOCK:

An enhanced directional jump block gives the player character a boosted jump in the direction the arrow is pointing towards.

**PERSONALIZED PLAYABLE CHARACTER DESCRIPTION: MARIO**

Like many other Super Mario Bros. games, the selected player character has its own unique set of traits and abilities. The default character is Mario, the iconic plumber. Mario's abilities are within the average range across all aspects such as jump height, run speed, and size. His unique jump attribute is triggered when the player taps the screen mid jump; the jump will then include a 360 rotation of the player character at a slower speed and is accompanied by a visual effect dust cloud.

Mario also has a small form, which is dependent on the player's manipulation or interaction with level obstacles, such as running into a mob. After the two mob hits Mario is defeated and either a Bubble is triggered or the level autocompletes, resulting in a failure. Mario's size can be recovered by interaction with a mushroom, which is triggered by interaction with certain types of blocks.

As the player progresses through the world, they will begin to unlock other playable characters with their own unique attributes.