



a microhack
by **BlueFinch**

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Legal:

This hack is not distributed as a ROM image (.NES / .BIN). If you received this README file accompanied by a ROM image file, it did not originate with me, BlueFinch, the author of this hack and this document. I am allowed to distribute a PATCH, which is what I have done. If you happen to find my hack posted anywhere besides RomHacking.net or the SMB3 Prime Discord Server, please let me know (because I won't have known anything about it!)

It is illegal to trade in ROM images. I own a physical copy of SMB3 for the NES, which is why I am legally able to own an image of the ROM for this game. If you've downloaded this patch (.IPS), it is assumed that you also own a physical copy of Super Mario Bros. 3 and will be patching this hack to a copy of your ROM image of this game.

A) First Things First

The chief thing that makes this romhack different is the change to Mario's flight engine. In the smash hit game "Super Mario Maker", Nintendo added the ability in the SMB3 game style for Raccoon Mario to recharge his flight by bopping enemies. I added that to Super Flyin, and it is in this hack also...

So, as in the first edition of "Super Flyin", Mario can do the following:

- ❖ **Recharge his flight timer by hitting an enemy.**
- ❖ **Hit enemies underwater.**
- ❖ **Goombas won't die after hitting them.**

NOTE:

This is a microhack:

A **microhack**, as I define it, is a single world hack whose levels revolve around various core changes to the engine of the game. There are changed tiles and levels and overworld maps, sure; but there are also changed enemies, changed gameplay, changed powerups, changed technical abilities, changed flow of events in the larger story arc, etc... all in a smaller format (1 single world).

So, this is a **microhack**. That means there have been some core changes made. A whole lot of 'em, in this case...

Let's look at those changes now!

B) All Modifications

1) Overworld Map Sprites, Tiles & Tunes

BEFORE	AFTER
Hammer Brothers Sprite Fire Brothers Sprite	Lurking / Crouched Boom Boom Roaming Water Boom Boom
Pipe tile World End Castle Bowser's Castle	Lower Pool (where Roaming Water Boom Boom sits.) White Countryside Fortress Modernized Bowser's Castle from GBA version
Pyramid Unused Fortress Unused 'Path and Nub' Dungeon B Rubble Dungeon A and B Rubble	Gave Pyramid a visible entrance / connected it to roads. This became the Chance Fortress (50-50 odds of entry) This 'handtraps' for the Chance Fortress. Sits above it. This 'handtraps' too. You could get pulled back into here! Gave them a less 'rubbled' appearance.
Level 9 Dancing Flower Quicksand Breakable Rock Dancing Palm Trees Dancing Hills	Level 'TR' for training, and orientation to the game. Also blinks now: https://youtu.be/pyCkhPTU13w?t=170 Removed borders from this tile. Made to look like mountains instead of 'rock'. Made dancing trees to not crouch as they dance. Made dancing hills to be trees, but swapped frames.

Koopa was able to render a version of the chorus of "Earthquake Weather" by Beck (from his album Guero) for the overworld map music. I chose this song because it has a simple, yet alluring mood, and reckoned it would work well on a loop.

Let **Koopa** know if he did a good job!



2) Game Meta

I developed the ASM code for "Toad Messaging", where toad speaks more than one page of text in the Toad House. He speaks them in sequence, and after it is done, you're released to get the treasure chest item. (also, I make toad disappear after it is done.) I sped up the text here significantly, for your viewing pleasure.

I made the King's Countryside Fortress to be the first level, as an introduction, immediately followed by the Princess letter. Does not increment world map afterward, but simply exits to map of current world.

Made the Toad House warp object trigger like a door in king's castle (either door in the King's Countryside Fortress). It does not look for Mario to be "behind the scenes" in order to function. This leads to white Toad House and 6 Fire Leaf powerups are given by Toad.

Upon re-entering the King's Countryside Fortress, either door will take you to the proper Next Area which is a simple fortress level that gives you a Fire Leaf. If you finish the level with it, then congrats, you keep your Fire Leaf suit.

There are **4 levels which have goal cards** as exits in this game.

There are **9 levels which have treasure chests** as exits in this game, and a secret chest in the King's Countryside Fortress.

Four of these chests can be re-obtained by re-beating the level.

That is to say, there are 4 opportunities in this game to re-enter a certain level space, and four opportunities to re-grab a powerup!

- The first is the King's Countryside Fortress. There is a chest behind the exit pipe. Just jump on over to the other side, and there it is.
- The second is the Chance Fortress, which can be replayed simply by pressing A on that tile. You can also be randomly grabbed as you pass by.
- The third is the Dungeon between levels 3 and 4. You can only re-enter this one by chance, as the tile it is connected to is not re-enterable.
- The fourth is the water tile where the Roaming Boom Boom sits. You can re-enter this one simply by pressing A on that tile.

Besides those extra situations to gain an additional Tanooki Suit or Fire Leaf, [Mario will automatically refresh himself as Raccoon Mario upon death](#). You cannot beat the levels without at least a Raccoon Suit, so this is given freely.

3) Enemies and In-level Tiles

3a) Enemies:

Treasure Boom Boom:



This red boomboom gives you a treasure chest upon defeating it. If it happens to be in the same room as others when he dies, he literally takes everyone with him when he explodes.

Dude has zero chill.

Tough Goombas:

These Goombas are tough. They can only be killed by a fireball or by falling into a pit. Bounce on them forever and use them to recharge your flight timer. They don't care!

ScaredyBones:

Simply a DryBones that observes ledges, instead of walking off of them like a moron. *(JoeSmo and I got this worked out in under an hour one day on Twitch.)*

Wall-wise Thwomps:

I made the Left / Right Thwomp to observe walls, instead of flying through them like wild maniacs if they happen to be really close to them. Normally, they move 7 tiles to the left or right, but now, they will stop when they hit a wall. *(There is a niche situation that will cause them to fly back farther than where they started on their return, but I could only replicate it 1/100 attempts. I have some ideas about why it happened, but that is for another day.)*

Toadhouse Warp Sprite:

This has been modified to only be triggered by pressing up when you're in close proximity. I put it in front of a door, so player will know when to activate it. Found only in king's castle.

Lava Lotus / Tornado / Brickbuster Goombas / Bobombs

These enemies are either completely removed, or partially removed from the game. They will function properly at all, nor are they supposed to. I removed them for space reasons. If using this as a base for your hack, **do not use these** or you will be like "janky hack, m8."

3b) In-level Tiles:

Hungry Vines:

this vine eats through solid tiles, and thus allows you passage to the other side of the level. they are marked with a bouncing vine on a block, so there is no question about what they are when you find them. (*JoeSmo helped me a couple of times with this one via Twitch.*)

Row Munchers:

I replaced the row of 4-sided noteblocks with a row of munchers, since I use a lot of munchers and they're 3 bytes a piece unless I use these, where I can have 16 of them for 3 bytes. who uses a row of 4-sided noteblocks?! This was an economical fix, and quite practical.

Boom Boom ? Ball / Orb:

I changed this to look like a Boss Key. It "unlocks" the Princess Chamber at the end of the game, and sends you on in to see her. Doesn't open the princess door, but that is the express narrative here. *I wanted to actually have this trigger the door to "unlock", like at the end of the stock Bowser fight in vanilla SMB3, but I was fatigued with this project, and didn't make that extra step to happen.*

Thwomps: I changed their appearance slightly (top half only). You might not even notice the change.

Semi-solid Platforms: I changed the screws on the semi-solid platforms to no longer be transparent, but be colored according to the shaded area of the platform they're attached to.

Spike: I changed Spike to have a slight downward frown for that ginormous mouth of his, for his 2 walking frames. You'd likely not have noticed unless you read this first.

Candlestick: I made the candlestick look significantly better by adding a shaded edge to the left side and base of the candle. You'd likely not have noticed unless you read this first.

Giant ? Blocks: I removed the weird design choice of having the rivets on each vertex to be transparent to match the background, and made them solid (black), like the normal-sized ? blocks are. **Also, they reset back to "full" whenever reloaded onto the screen.**

4) Gameplay and Tech

4a) General:

As in the first edition of "Super Flyin", Mario can do the following:

- ❖ **Recharge his flight timer by hitting an enemy.**
- ❖ **Hit enemies underwater.**
- ❖ **Goombas won't die after hitting them.**

Flight:

Everyone can fly in this game, and everyone can slide.

Little Mario can fly. Fire Mario can fly. Hammer Suit Mario can fly.

Hammer Suit Mario can slide (but he is not used at all in this hack).

You cannot "flutter" unless you have a tail, so once your flight timer runs out, and you're tailless... you will fall like a stone!

Keep in mind, you may or may not be able to beat the level without a certain powerup, but you can at least look ahead a little bit before starting over. That is why I programmed them all to have flight ability. Now that is some super flyin...

Shells:

Mario can grab shelled enemies on his descent instead of automatically kicking them.

you do this by holding b on the way down toward the shell. *(Concept ported from Super Mario Maker / coded for NES by **OrangeExpo**)*

Death and Life:

Mario has a quick death animation and return to overworld *(coded by **OrangeExpo**)*

Mario has infinite lives and there are powerups everywhere. This game is about playing the levels, not beating the game under constraint of lives, or powerups (there are a lot of powerup opportunities in this game)

Auto Re-Powerup:

Mario Resets to Raccoon Mario...

When he dies.

When he touches a goal card...

When he touches a treasure chest...

or Retains Active Powerup

unless he is wearing a 'superior' suit: **Tanooki / Fire Leaf**

unless he is wearing a 'superior' suit: **Tanooki / Fire Leaf**

*Mario **does not reset** to Raccoon Mario after entering the pipe in the hidden fortress level inside of the king's castle. The point of that mini fortress is to give you the in-level Fire Leaf if you can beat the level with it.*

4b) Powerups:

Raccoon Suit:

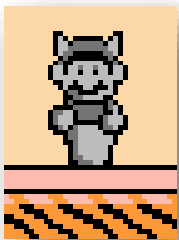
Can do everything he normally does, but can also tail attack underwater. this makes him to not use his swimming frames, but hey, you can't have it all!

Fire Leaf Suit:

Replaces the frog suit, and doesn't apologize for that at all. (next hack will have my conception of an improved **Frog Suit** which...[secrets])

Fire Leaf Tech:

- ❖ **Press B** for a fireball
- ❖ **Hold Up and Press B** for a tail attack
- ❖ **Hold Down and Press B** for a statue which can move around and even gain p-speed.



The Fire Leaf statue is much faster in transition than Tanooki's, as I don't use the "poof" frames. I have found this to be way better for gameplay and flow.

The Fire Leaf cannot tail attack underwater. Hey, you can't have it all!

Tanooki Suit:

Can do everything he normally does, but his statue doesn't lose x velocity when activated. This means he can slide around while a statue, which is valuable tech for this hack. He still "poofs" in and out of transition, so it will end up feeling slower than Fire Leaf (because it is).

NOTE:

I left the Spade Game active on accident, and so, you will be able to get Mushrooms and Fire Flowers in this hack. Like I said previously, you can fly with these, but cannot flutter. You sink like a stone once the flight timer runs out. Also, you can't beat a level with anything less than Raccoon Suit.

Fortunately, all of the non-tail suit sprite animations work as they ought to. This is ensured by some code I had previously written to check if the person who is in flight is wearing a certain suit. Basically, if there are "tail frames" to draw, they're drawn; otherwise, they don't try to draw them. If the game DID try to draw tail frames on Fire Mario, for instance, it would repeat some leg frames, and look weird. Centaurio?

C) Level Schematic

Overworld Tile	Terminates With...	Nominal Level Space
King's Countryside Fortress	Princess Letter (Hammer in Letter)	1 - End Castle
	Toad House (Fire Leaves x6)	White Toad House (via either door. only triggers once)
	Bonus Fort (Fire Leaf in Chest)	5 Dungeon 1 (via either door once Toad House is completed)
TR for Training	Goal Card	1-1
Sandy Boom Trap	Tanooki in Chest	World 2 Hammer Bros 2
1-1	Goal Card	1-2
1-2	Goal Card	3-7
Chance Fortress	Fire Leaf in Chest	3-Dungeon 1
The Pyramid	Hammer in Chest	2-Pyramid Outside / Inside
1-3	Hammer in Chest	7-1
Dungeon B	Fire Leaf in Chest	2-Dungeon
1-4	Goal Card	6-4
Bonus-5	Tanooki in Chest	6-10
Bonus-6	Fire Leaf in Chest	7-9
Water Boom Trap	Tanooki in Chest	World 3 Hammer Bros 2
Dungeon A	Fire Leaf in Chest	1-Dungeon
Grand Dungeon	Bowser's Key to Princess Chamber	6-Dungeon 3



D) Thanks to the Following

Captain Southbird for giving the romhacking community his disassembly of Super Mario Bros. 3. He has done a great work and is rightly considered the godfather of modern SMB3 hacking.

The disassembly of Super Mario Bros. 3 has made it possible for anyone to look underneath the hood of this wonderful game and make sensible and creative changes to the core of the game, due to its sensible and extensive commentary and labelling. Without the disassembly, we would be slaving away in a sea of hex values, where most of us would drown immediately. So then, **Captain Southbird, we salute you! Jump, technically always!**

OrangeExpo for his invaluable help on some major things, including the multi-boomboom battle code. I did augment it later to handle my Treasure BoomBoom, but he is completely responsible for the base code from which everything else grew. He is mentioned in a couple of other places throughout this document, detailing his other help.

JoeSmo for various times on twitch when we walked through some ASM issues. Sometimes we got it, and sometimes we didn't! We had fun, though. JoeSmo designed the second-to-last level of the game, also.

Michael for the same thing. Sometimes we got it, and sometimes we didn't! I appreciate the assistance and fellowship, as it was the path toward the solution. Michael is the author of **SMB3 Foundry**, which is the newest level editor, and spiritual successor to SMB3 Workshop.

Koopa for programming a funky and cool rendition of the chorus from "Earthquake Weather" by Beck for my overworld music.

BlueCrush, **EvilElf**, and **Eddie** for helping in playtesting the final version of this hack. Their feedback was helpful to make it polished and smooth.

The larger **SMB3 Prime** community for the various kinds of support and knowledge and camaraderie, including **KP** who generously helps everyone.

My **God** and **Savior Jesus Christ** for the gift of eternal life and forgiveness of sins by believing in His name.

*If I didn't mention someone's name either here or throughout the document, please let me know. I have made a solid effort to remember anyone who helped me in **any way**.*

E) Final Words

Super Flyin' Again officially released on Friday, May 1st, 2020.

This hack concludes my Super Flyin' series. Thank you for playing, and please know I will always be making more romhacks of this wonderful game as long as the Lord gives me breath in my lungs, and as long as Nintendo allows us to peacefully exist next to our younger, smarter, cooler and more handsome brother, **Super Mario Maker 2**.

I welcome solicitations for collaboration, as well as ideas for new projects, both from experts in romhacking as well as from those who know little to nothing about the game, and maybe always thought "it would be cool if you could do this or that".

That is the spirit of romhacking, after all – "it would be cool if you could do that".
So then, let's do it!

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