

Freedom Planet Stage Design Guidebook (Beginner's Guide)



FREEDOM PLANET



SHANGTU ARCHITECT



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Foreword

After Brevon's defeat, it became clear to us that threats from other worlds are very real. Invasions of Avalice will not stop here; it is not a matter of if, but when.

Through unmatched teamwork, our world's greatest warriors proved their potential, but greater terrors than even Brevon may lie in wait. We at Shang Mu Academy have received upgraded funding from Mayor Zao, to expand our facilities and advanced combat training programs.

You, architect, will assist me in building training rooms, combat arenas, and gymnasiums deep within the remote forests of Shang Mu, all in the name of teaching a new generation of heroes. The survival of our world may depend on it!

My name is Savvy Marigold. I am the lead architectural oversight developer of Shang Mu Academy. My mission is to teach you everything I know. Our training arenas should be challenging, but most importantly, safe and open for all!

It is very nice to meet you, architect! Let's get started!



[Art by Treylina](#)

General Stage Structure

Freedom Planet's level structure may remind Sonic fans of the Sonic the Hedgehog games, but it does take inspiration largely from Mega Man's stage structures with some aspects of Sonic. All this while bringing unique deviations of its own.

Freedom Planet's stage structure often favors a singular linear path, but it does rely on Sonic 2-styled top and bottom paths for longer horizontal sections. (Such as Fortune Night 1 from FP1, as pictured below.)



Sonic 2's stages universally made the top paths the "fun" sections, whereas the bottom paths would be the slower, more punishing sections to navigate.

Freedom Planet, however, applies no such pressure to be on the top-most path to have the most fun. (Save for Pangu Lagoon! The bottom paths have bees! Oh no!) Almost all paths are valid, and each contain their own variety of items/goodies to collect.

Players are then funneled back into a linear area or set-piece at the endpoint where both paths connect. This allows for a curated experience where no one misses the important story-relevant set-pieces, while still

giving players the freedom to explore on their own terms for most of the stage.



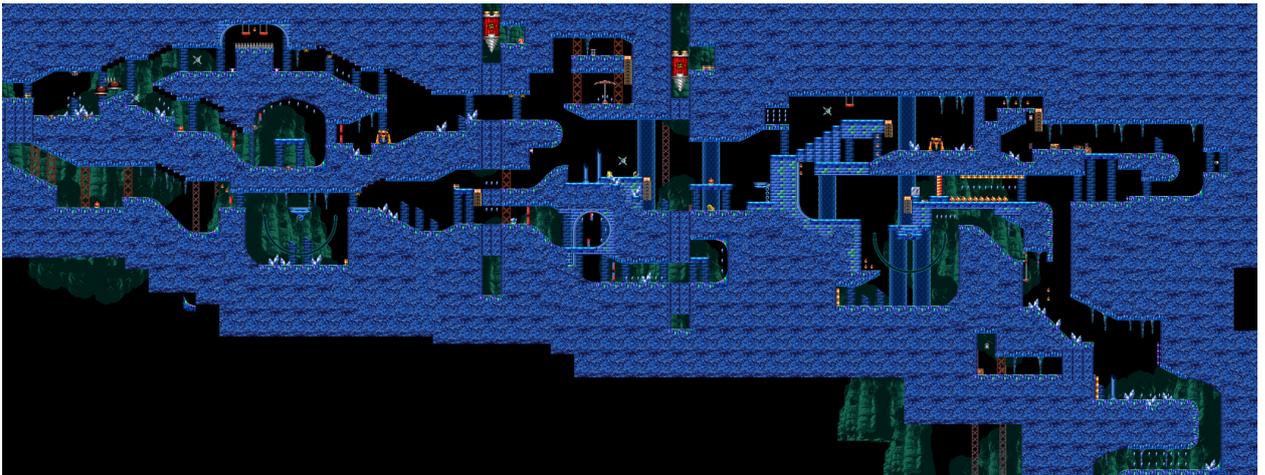
(This also spares stage designers the incredible burden of needing to make two entire levels that are stacked on top of each other, with plenty of ways to cross between each. Sonic-like labyrinths are tough to scope for!)

Much like Mega Man's stages, Freedom Planet generally trends downwards from left to right. Players start at a high point, then descend through peaks and valleys. This pattern is great for a thrilling sense of speed and progression, like when going downhill in real-life.

Let's compare the Mega Man 3 stage "Top Man" to a section of Freedom Planet's Relic Maze:



(Above example sourced from [VG Maps](#))



(Above example sourced from [this Imgur gallery of FP1 stage maps!](#))

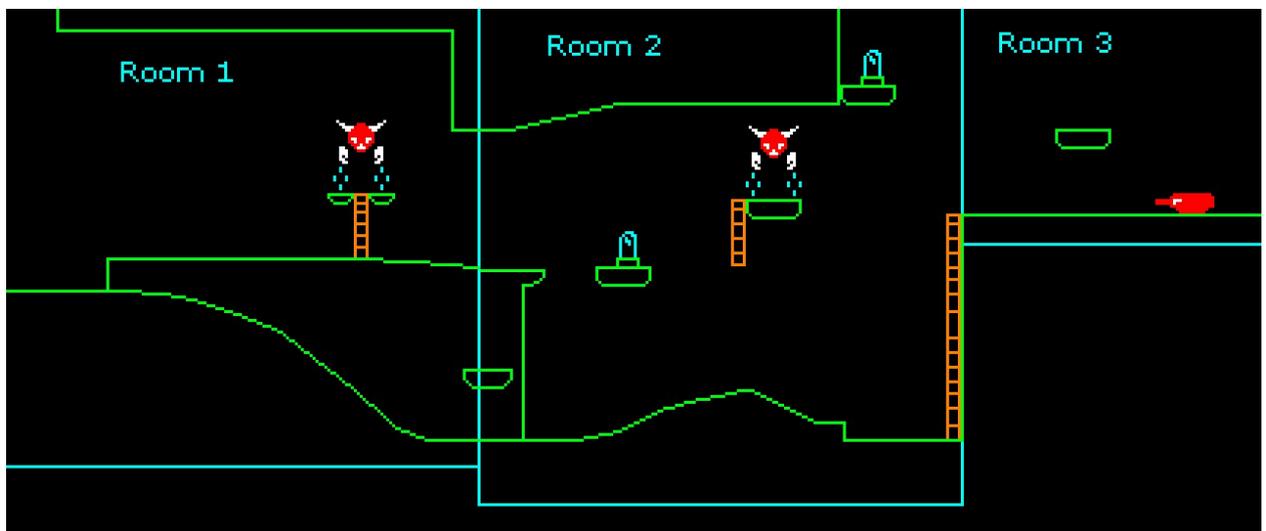
Be bold when making long stretches of "roller coaster" terrain. Each of Freedom Planet's three characters give the player three ways to go fast at any time! It's never boring.



Stage Design Formula

While presenting the grander picture is helpful, it doesn't give us an applied understanding of stage design. We need to fill our stage geometry cohesively with items, gimmicks, and enemies. Creating art is always a subjective and experimental pursuit, but we can form methods or theories to assist us in the creative process.

This section presents the formula I have developed to create Freedom Planet stages.



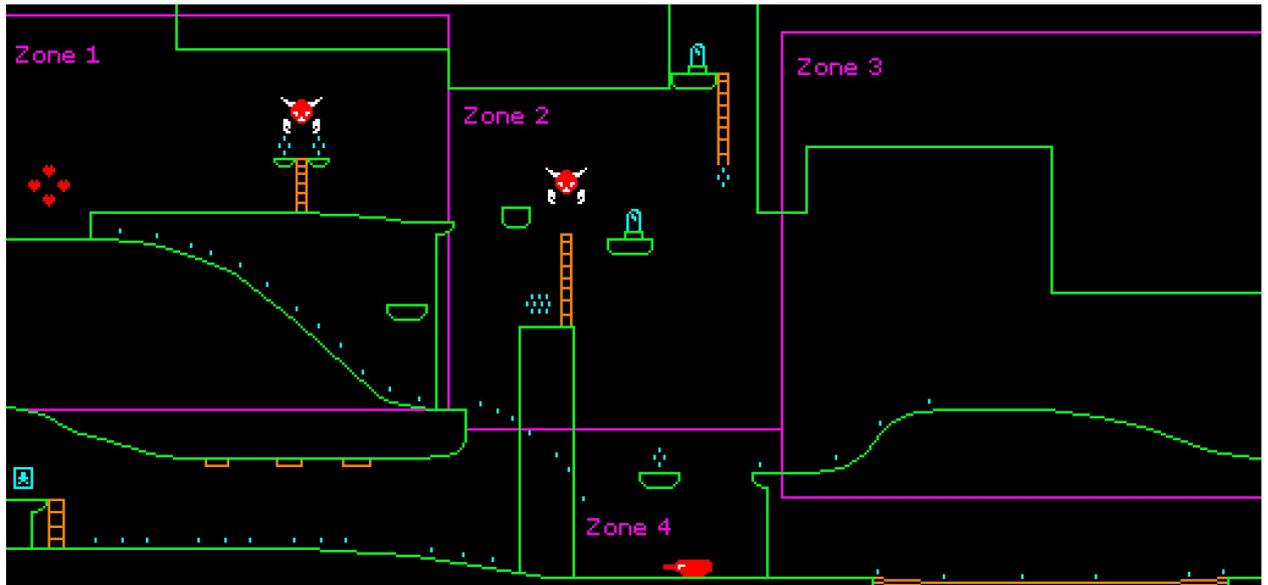
Simple (“Room To Room”)

This is the formula at its most basic. It is centralized around the placement of enemies for effective stage design, which helpfully acts as a “prompt” for designing the stage’s layout.

- 1) Each stage is composed of dozens of connected zones (Or rooms, if you prefer)
- 2) Each zone has one enemy acting as its sentinel. Is it guarding an item, power-up, or acting as an element of pressure in platforming sections?

3) The end for the stage can be the point where you ran out of ideas to further apply your enemies and gimmicks in interesting ways, or unique combinations.

Stretching your stage beyond that point is an exhausting exercise for you as well as your hopeful player. Designing the end room or boss arena at the edge of this point allows your stage to sustain its potency in the player's mind.



Advanced

This is the formula in full effect. Each zone is separated into its own boundaries, much like boundary lines on a map. As shown, it is possible to break down even large open areas into zones. Here is a breakdown of what each zone is doing in this example:

Zone 1)

- Has mid-air petals in a row, to help alleviate the player's mistakes after confronting a strong group of enemies, or a mini-boss. These petals are, however, placed in such a way that encourage Time Attack enthusiasts and speedrunners to elect to avoid them for improved times. (Thus escalating their sense of risk/reward.) Casual players will appreciate them either way, even if they have to stop and jump upwards to collect them.

- A path of gems that encourages the player to take the most optimal (intended) route through this section of the stage, falling through Zone 2 and into Zone 4. (They will consequentially ignore the enemy in Zone 1, and land above or over the enemy in Zone 4.)

- Notably, Zone 1 has an obvious path to avoid engaging with its sentinel enemy entirely, and even if they take the top path, the player can still choose to run underneath them instead. There is a small reward for engaging with enemies in Freedom Planet, as well as Freedom Planet Academy; some players will choose to do so. It's fun to kick things, isn't it?

Zone 2)

- This is an “exploration” zone. This example in particular can be fallen through or zipped across horizontally with no consequence to the player, but they can choose to engage with the stage geometry for its helpful power-ups. (Such as shields and invincibility flowers.) Doing so will, however, come at the risk of engaging with the zone's sentinel enemy.

Zone 3)

- It is a “hold forward” section of the map, where the player is allowed to simply enjoy running forward and “breathe” before the action ramps back up again in the next zone. A stage that is 100% engaging action can be stressful; even the simplest platformers benefit from a short moment of running.

- In this example, it also functions as a reward for expertly and/or quickly navigating above the “intended” path implied with the placement of gems in Zone 1. (For instance, Lilac dragon boosting above the top path of Zone 1, boosting straight across Zone 2, and landing onto Zone 3 without having touched Zone 2's ground.) It gives the player a wider area to land into.

- Helpful power-ups and other items can optionally be placed in this zone's detours or nooks and crannies, for players who are more interested in exploration instead of moving quickly.

Zone 4)

- This zone is a mix of zone types. It offers optional exploration, if a player is interested in stopping to reverse course, enticed by the trail of gems to find a Star Card in the stage. And if a player is more interested in moving forward, they will have to consider gliding over the enemy on the ground, or engage with it and walk towards the nearby bridge into the next zone.

Additional tips:

No more than one enemy per zone. (Unless it is a group of weaker enemies that are easily KO'd in one hit.) Each enemy has its job to do in its respective zone. Players generally do not like engaging with stages that have "enemy spam".

There should be some clues for observant players to pick up on when a boss or mini-boss arena is coming up. Freedom Planet 1 consistently places 1 or 2 Petal Flowers nearby or in-front of boss arenas

Enemies are effectively walking obstacles or rolling hazards, which prompts the shape of the stages around them. There should always be one way (or more) to run over or under an enemy in each zone.

This allows skillful, observant players to uncover multiple viable routes to navigate a level without taking damage, and thus rewards them with new personal bests in their time attack records. (Speedrunners aren't the only ones interested in personal bests!)

The Camera's Role in Stage Design

Most platformers' cameras prefer to maintain downward visibility, to help the player see hazards, platforms, and enemies. Freedom Planet is no exception to this rule.

Note how easy it is to see certain doom below the player characters. This helps the player jump with more confidence across the air, with less fear of what might be below them.



Conversely, this downwards camera bias means that stage designers will need to account for it with upwards vertical sections; i.e, not to place hazards where the player won't be able to see them in time, as shown in the screenshot below.



If you are to have a stage with upwards vertical sections, ladders help reset the camera's center position for visibility. (Floating platforms and/or terrain placed at half-screen heights help reset the camera's position, as well.)

Shang Mu Architect has readjusted camera's top boundary to allow more upwards visibility, in a way that players coming from Freedom Planet 2 will be more familiar with. Players can see goodies (and enemies.) coming a little sooner.



(This change also scales with the zoom out levels. Seeing above your head from afar just got better!)

Item Placement

There are no hard or fast rules on how stage designers should place their items throughout their stages in Freedom Planet; its gameplay is uniquely flexible.

However, there are noteworthy patterns to Freedom Planet 1 and 2's item placement that further sets itself apart from Sonic. If level designers would like to make their stages as authentic to FP as possible, here are some examples:

A very typical pattern that's hard to miss in the classic Sonic games, and even some Mario games, are horizontal (or vertical) rows of three collectables grouped together at a time. These groups do appear occasionally on the ground in Freedom Planet, but groups in mid-air are exceedingly more rare.



Typical patterns in Freedom Planet instead lean on a design philosophy that is common in other types of action platformers, such as Donkey Kong Country, rather than like Mario or Sonic.

Trails of gems are often placed over "recommended" paths for the player to take. These could be directly on the ground, or placed in mid-air. The rationale is to keep the player moving forward without getting too lost, or making too many undue jumps to collect items as they go.



As well, what would otherwise be empty gaps can be filled with pretty gems worth collecting! As long as gems are placed evenly apart, as many gems as desired can be used to fill gaps in terrain. (Even 32 items or more, Donkey Kong Country style. Go bananas!)



Gems have another use in Freedom Planet 1 and SMA. Gems not only grant an extra life after collecting 200 gems; they give the player 5% extra stamina for each gem. Rows of gems can easily refill an empty stamina bar!

Unique to Shang Mu Architect: Milla's puppy float meter is restored by collecting gems mid-flight. Trails of gems can be placed to allow her longer float times over large gaps, or float up to secret areas she otherwise can't reach.

Knowing this, who isn't feeling a little more greedy?



Freedom Planet occasionally places crystal gems and petal flowers in decorative ways, as well. Especially inside of trees and other pieces of natural scenery, as if the items were shiny fruits or berries. (Which gives foreground scenery more visual appeal.) It's a nice attention to detail that's unique to FP.

Additionally, in cases where stage designers would rather not place lots of gems, crystal and petal flowers can be placed in nooks, crannies, and corners of their stage layouts. They are great for pacing, if not another fun object for players to hit.



Freedom Planet 2 introduced floating crystal flowers, which allows the player to collect more gems with less time spent collecting large clusters of individual gems in mid-air. (And, of course, who doesn't enjoy attacking more things in video games?)



Collectables have many utilities for stage designers. They are useful for implying hidden paths, and giving away alternative paths outside the camera's view. (For instance, a single gem placed below a ladder that's above the camera's range, means fewer players will miss it!)

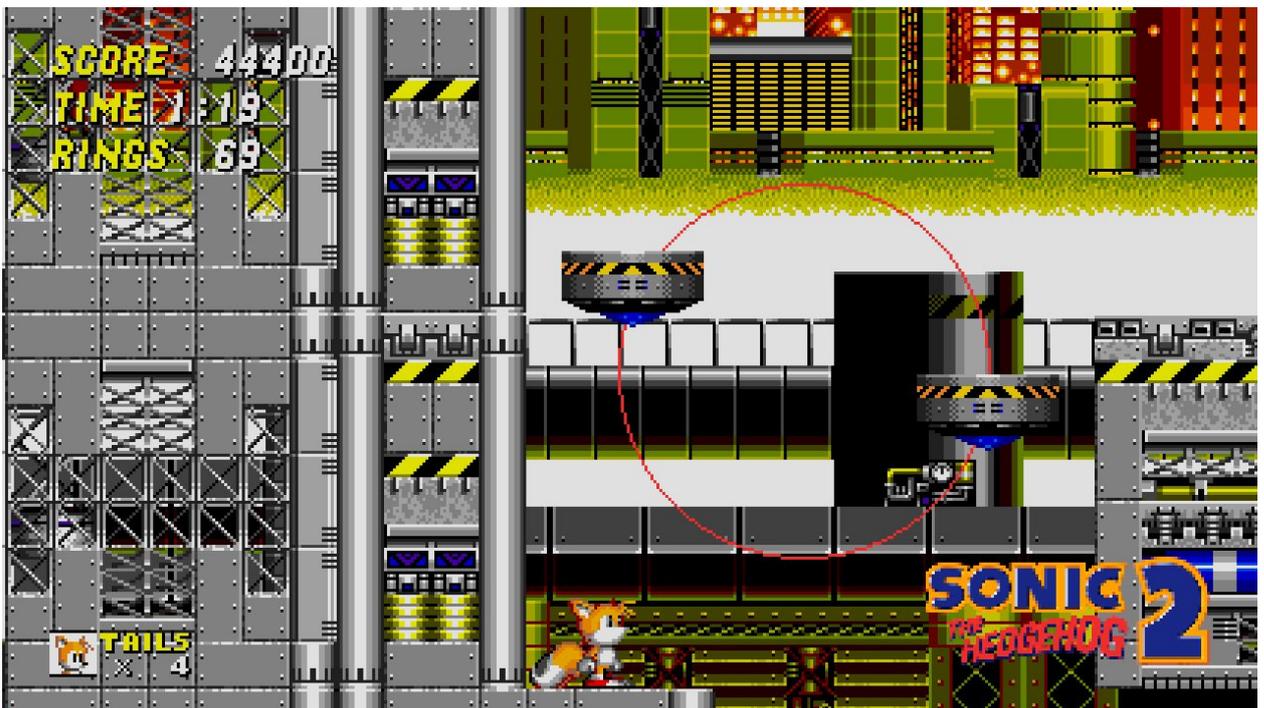


Lastly, enemies and items are often best kept reasonably apart. There are exceptions to this rule, such as where stage designers can use gems to hint at a safe path around enemies. However, it can be distracting to fight and collect items simultaneously.

Moving Platforms

Moving platforms might be one of the last components of a platformer stage considered by stage designers, especially beginners. However, for fast-paced platformers like Freedom Planet, pacing is paramount to creating fun, replayable levels.

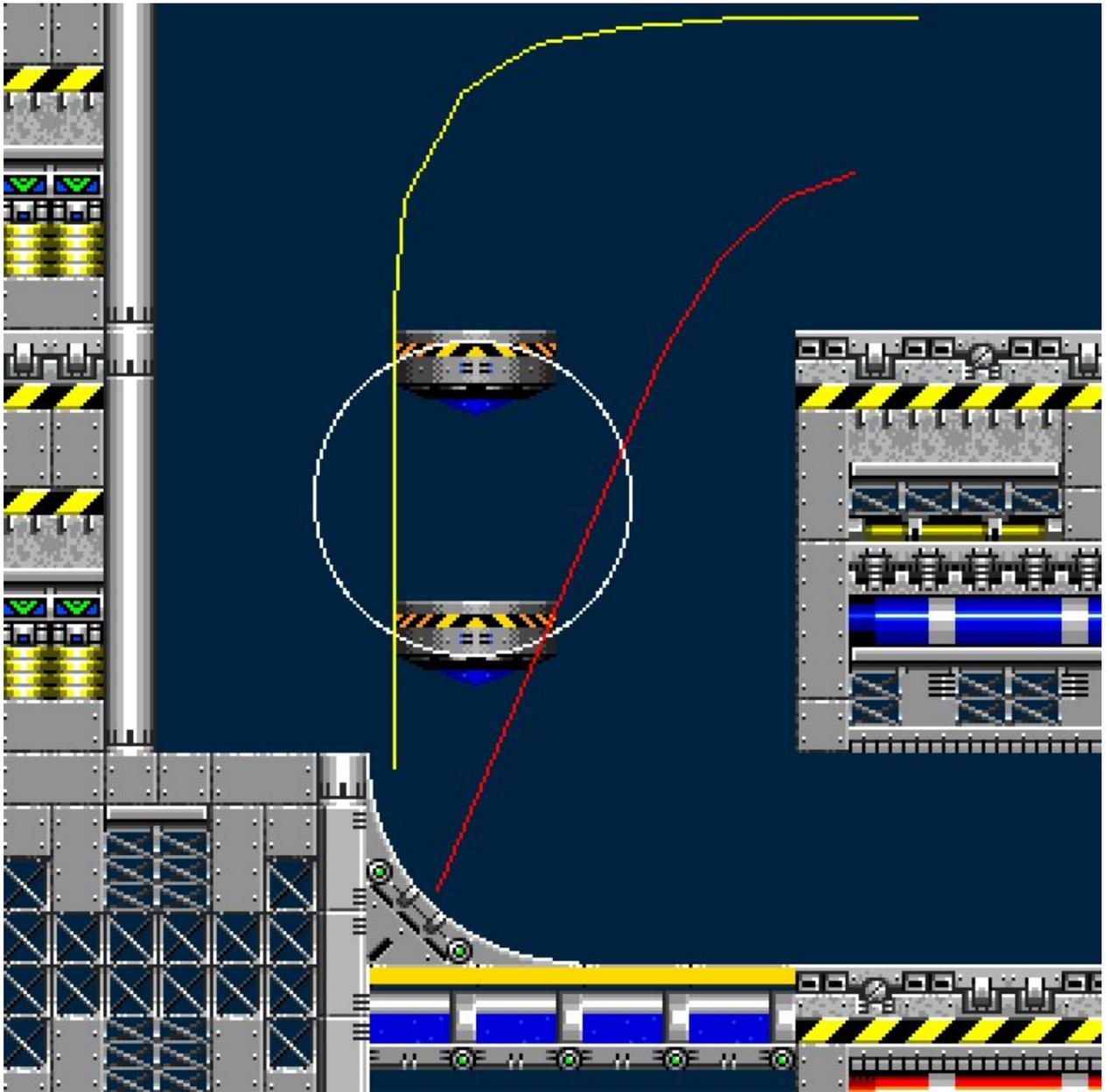
Their placement in stages has this general rule of thumb, as shown by a surprise example from Sonic the Hedgehog 2 below:



What is on display is a clear example of how to best implement moving platforms:

If landing on moving platforms is mandatory to reach the next area of a level, multiple moving platforms, such as this orbiting pair of platforms, allows for mechanically-interesting movement in the environment, while also not requiring the player to wait for a platform to rise up or down before they can ascend.

The player has the choice of waiting to land on an orbiting platform at a middling point, or jumping on a low-hanging platform, then skillfully reaching the ledge above, or jumping from the low-hanging platform to the highest one, before jumping onto the ledge.



Ideally, the placement of moving platforms can be a helpful (and optional) navigation tool for beginners, like in this modified example. Placing terrain in such a way that a skillful player can navigate their way to the upper ledge without the help of the moving platforms.

For instance, Sonic and Tails could choose to spin dash to fly upwards on the ramp, then turn right to land on the above ledge, as shown in Red. Or even run into the ramp at high speed and jump at its mid-section, so as to launch towards the ledge, as shown with the yellow line.

All this, while a beginner who knows none of these techniques can simply jump onto the floor above the ramp, then onto the floating platforms to reach the above ledge.

Veteran players know these techniques apply to Freedom Planet, as well. Freedom Planet, like Sonic, calculates the player's modified jump height while on sloped surfaces, based on their speed and angle. In other words, jumping fast on angled terrain can make Lilac and friends jump higher.

Additional tips

Don't be afraid to let players hold right for more than 3 seconds at a time. Give the characters room to run, and fun detours with goodies that encourage an exploring player to stop running on the main path and investigate. (Dragon Valley in Freedom Planet is great at this.)



And, as outlined in Super Mario Maker 2's "Yamamura's Dojo", players appreciate "breathing room" between sections of intense gameplay. A short moment of speed with the simple joy of running along slopes, no enemies or gimmicks to interact with, is a fun pacing tool for any platformer, including Freedom Planet.

Boss arenas are best when they are made like Smash Brothers stages. Platforming is present, but it is kept simple as to not distract from the fight.



Thank you!

That should cover the basics! Thank you for taking your time to learn stage design for Freedom Planet! It is my hope that this manual is a useful reference, as you bring all of your new, exciting ideas and experiments to the canvas.

I am happy to play a small part in your journey of studying stage design. It is my hope that being an architect is not only fun, but sparks those wonderful sensations of fulfillment, while you played and created something for others to enjoy.

This is your big chance to make stages with Lilac and her friends! Have fun learning and playing each others' creations!

~Savvy Marigold

