

ACCA 4033 Game Design Document Beauregard Brown 2502007 BA Hons Computer Games Design

by Beau Brown

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For Steam Client (Controller Compatibility) and Xbox S



PEGI 3

Release Date: TBA



***For those who love fast-paced, dynamic gameplay and
to game solo or as a team!***

CONTRIBUTING TEAM MEMBER:

Beauregard Brown

SECTION 1: TITLE PAGE

Scott Rogers 'Ten-Pager' Template

SECTION 2: GAME OUTLINE

GAME STORY SUMMARY

Sonic The Hedgehog 2 has 11 Zones which are broken up into Acts. The player must guide Sonic through the level, collecting Rings, defeating robotic Enemies also known as 'Badniks', freeing innocent animals and avoiding obstacles and terrain hazards.

The player must defeat the Boss, Dr. Robotnik, in one of many contraptions at the end of each Zone to progress to the next.

Bonus Levels allow the player to earn extra points and potentially a Chaos Emerald, rendering it unavailable to the Doctor and his evil plans.

GAME FLOW

Sonic The Hedgehog 2

"A 2-D side-scrolling platformer in which Sonic the Hedgehog and his friend Miles 'Tails' Prower traverse the world and its many landscapes freeing innocent animals from robotic prisons to prevent the crazed Dr. Robotnik and his inventions from collecting the Chaos Emeralds."

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SECTION 2: GAME OUTLINE

Scott Rogers 'Ten-Pager' Template

SECTION 3: MAIN CHARACTER(S) & PLAYER CONTROLS

SECTION 3: MAIN CHARACTER(S) & PLAYER CONTROLS

Scott Rogers 'Ten-Pager' Template

CHARACTER APPEARANCE



CHARACTER DOSSIER / DETAILS

NAME:	Sonic
GENDER:	Male
SPECIES:	Hedgehog
AGE:	16
KNOWN ASSOCIATES:	Miles 'Tails' Prower

CHARACTER'S BACKSTORY

After having defeated Dr. Robotnik once, Sonic decides to take a holiday on West Side Island. When he is exploring the island, he finds he is being followed by a timid two-tailed fox and makes friends with him. They soon run into mechanical animals, 'Badniks' and set out to free the animals trapped in these devices and to defeat Dr. Robotnik, the mastermind behind them.

JosiahBlaze

Sonic can Spin Dash to defeat enemies and is able to travel at incredible speed.

If the player successfully retrieves all 7 Chaos Emeralds he can turn into Super Sonic, a special form of himself that is able to travel even faster, fly and is constantly invincible, able to fell enemies with a touch.

This form drains Rings, however, making it a useful but resource intense state.

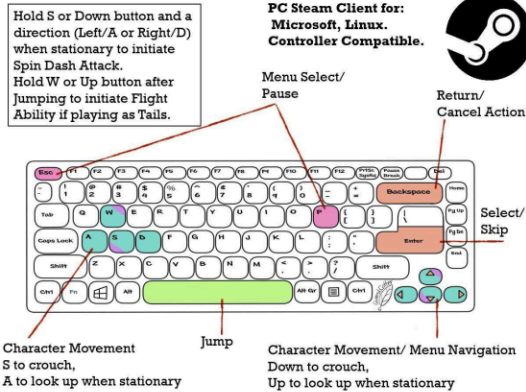
Sonic is generally seen as a quick-witted and slightly cocky youth who enjoys freedom and has a big heart, despite being a little tactless at times.

During Bonus Levels, Sonic leads and can move from left to right to avoid obstacles and collect rings, as well as jump. This style of play shows him moving from the back in a third-person perspective.

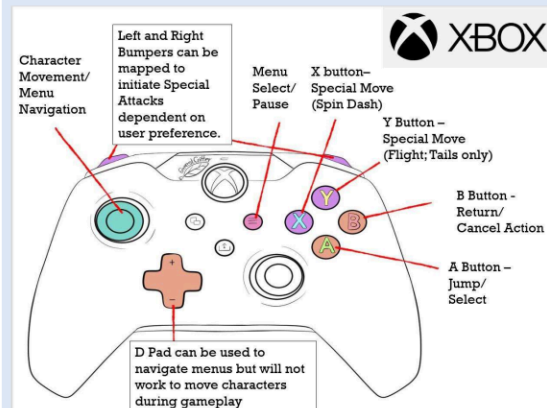
SECTION 3: MAIN CHARACTER(S) & PLAYER CONTROLS

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CHARACTER CONTROLS / PLAYER CONTROLS



Controls for PC Steam Client. These can be remapped to facilitate player preference or accessibility.

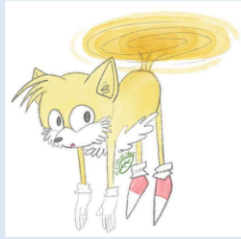


Controller for Xbox. Can be remapped to facilitate player preference or accessibility.
If a second controller is not available for Xbox, Multiplayer Mode will not be viable.

SECTION 3: MAIN CHARACTER(S) & PLAYER CONTROLS

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CHARACTER APPEARANCE



CHARACTER DOSSIER / DETAILS

NAME:	Miles 'Tails' Prower
GENDER:	Male
SPECIES:	Two-Tailed Fox
AGE:	12
KNOWN ASSOCIATES:	Sonic the Hedgehog

CHARACTER'S BACKSTORY

'Tails' encounters Sonic on West Side Island, having been shunned for most of his life due to his twin tails. He follows Sonic but is soon discovered and joins forces with Sonic after realising they are both concerned about the growing number of mechanical 'Badniks' invading the island, closely followed by Dr. Robotnik.

'Tails' can Spin Dash like Sonic and can also Fly by using his twin tails like helicopter rotors.

He is naturally very shy due to both his age and lifelong bullying but comes out of his shell more when he is around Sonic, as he looks up to him.

During Bonus Levels, 'Tails' follows behind Sonic, much like he does in the main game. 'Tails' follows the movements of Sonic, whom the player controls in the Single Player mode.

The end of the Bonus Level will show how many Rings both Sonic and Tails have picked up respectively, with 'Tails' usually ranking lower due to him picking up missed Rings.

SECTION 3: MAIN CHARACTER(S) & PLAYER CONTROLS

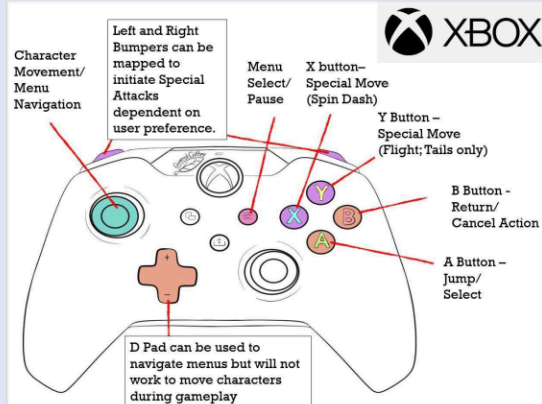
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CHARACTER CONTROLS / PLAYER CONTROLS

Playing as 'Tails' requires a second player.

If using controllers, at least two controllers are required, or alternatively one keyboard and one controller. These can be mapped to Player 1 or 2 as preference dictates.

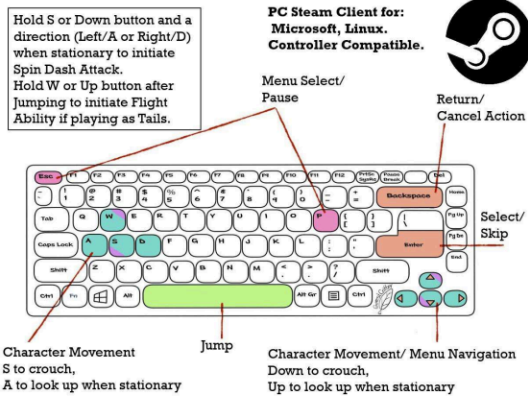
If Player 2 decides to use a controller, the mapping for an Xbox controller remains as it would for a usual Single Playthrough.



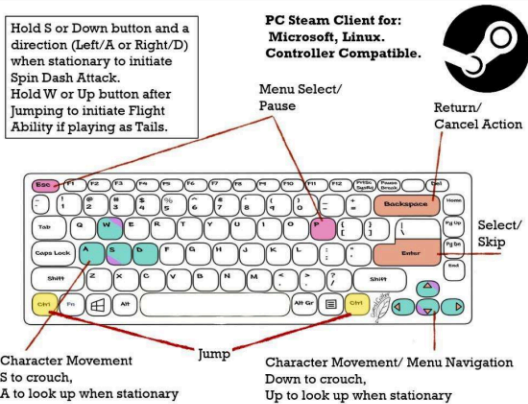
If the second player decides to use the keyboard whilst Player 1 uses a controller, the keyboard bindings remain the same as they would in a Single Playthrough.

SECTION 3: MAIN CHARACTER(S) & PLAYER CONTROLS

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If controllers are unavailable, the keyboard for PC may be shared between both players in the configuration shown below. WASD or Arrow Keys can be mapped to either player and the Ctrl button closest to the movement keys is used as the 'Jump' button in lieu of the Spacebar.

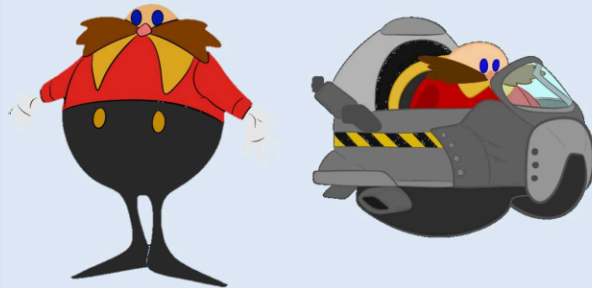


SECTION 3: MAIN CHARACTER(S) & PLAYER CONTROLS

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CHARACTER APPEARANCE

Dr. Ivo Robotnik is a squat, round human who sports a large moustache and blue glasses. He is usually seen in black trousers and a red and yellow top. He is bald and his nose protrudes from his 'tache. He often escapes in his 'Egg Pod' which can attach to various devices he has created.



CHARACTER DOSSIER / DETAILS

NAME:	<i>Dr. Ivo Robotnik</i>
GENDER:	Male
SPECIES:	Human
AGE:	Unknown

CHARACTER'S BACKSTORY

Dr. Robotnik is a brilliant but delusional scientist who is looking for a way to capture animals and turn them into robotic minions. He has visions of taking over the world and setting up his own empire, with everything forged in his image. He is incredibly clever and cunning but has an ego to match.

In *Sonic the Hedgehog 2*, he hears of the Chaos Emeralds, an ancient power source located on West Side Island and seeks to find them for himself to achieve his goals. He is faced with Sonic once more and his newfound friend, Miles 'Tails' Prower.

His expertise in mechanics and robotics allows him to create not only 'Badniks' as minions, but impressive machinery and vehicles with which to fend off the main protagonists.

Dr. Robotnik is the main antagonist and is therefore not playable.

CONTRIBUTING TEAM MEMBER: Beauregard Brown

SECTION 3: MAIN CHARACTER(S) & PLAYER CONTROLS

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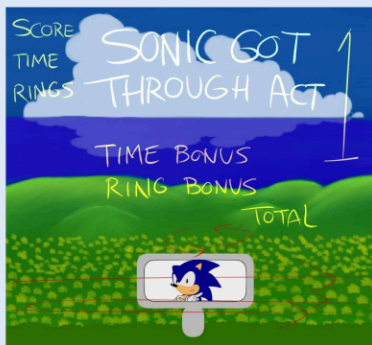
SECTION 4: GAMEPLAY

SEQUENCE OF PLAY

Sonic The Hedgehog 2 is split into 11 Zones, each with 2 Acts, except for one which has 3 Acts.

At the end of Act 1, the player will pass a 'Goal Plate' which will initially show Dr. Robotnik's face and then spin to show Sonic's. They will receive an overall score based on:

- The time taken to clear the area
- The number of 'Rings' held by the player at the time of completion
- The score accumulated during the level by defeating enemies



At the end of Act 2, the player will face a Boss fight. The final Score for the Act will be the same as previously mentioned, although Rings may be significantly depleted during the Boss fight. A Capsule will usually appear after the Boss fight, allowing Sonic to free the animals trapped by Dr. Robotnik.

SECTION 4: GAMEPLAY

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UNIQUE SELLING POINTS (USPs)

- Fast-paced action, akin to a pinball machine experience
- Bonus Levels in 2.5D!
- Multiplayer Vs Mode
- Retro feel
- Bright, memorable music
- Colourful graphics

SECTION 4: GAMEPLAY

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An idea for the set up of Bonus Levels, accessible by activating a Star Post whilst holding 50 or more Rings. This Bonus Level allows the player to have a different style of play – 2.5D, using 2D graphics to make a 3D effect, as if looking over Sonic's shoulder whilst he moves *forward* rather than the usual side-scrolling aspect.

Rings are littered either side of a half-pipe and in the middle. Obstacles may appear which can damage the player. They must collect a predetermined number of Rings per Bonus Level to have the chance to find a Chaos Emerald and keep it safe from main enemy Dr. Robotnik.

PLATFORM-SPECIFIC FEATURES

Steam Client has full Xbox controller compatibility.

Possibility of long distance/ internet facilitated multiplayer but for now, LAN/ proximity is possible for Multiplayer Mode.

CONTRIBUTING TEAM MEMBER:

Beauregard Brown

SECTION 4: GAMEPLAY

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SECTION 5: GAME WORLD

GAME WORLD

Each Zone is unique and will have different background art and foreground terrain. There will likely be area-specific enemies, such as 'Chop Chops' who are based on a piranha and can only be found underwater.

However, there will be items throughout the game that make it clear to the player that they belong in the same world and storyline, including hazards, enemies and mechanics.

There is no 'Map' as such, since the player is automatically transported to the next Zone once the Boss for each Zone is defeated.

LOCATION DETAILS

NAME: *Emerald Hill Zone*

**WHAT DOES
IT LOOK LIKE?**

Rolling greenery and lush palm trees, bushes and flowers. Waterfalls and rope bridges to cross them. Blue skies and puffy white clouds showcase the glistening sea and far-off islands in the background. Everything is natural and beautiful, save for the mechanical enemies.



Background design – a lush meadow, hills in the distance and the sea with billowing clouds and an island.

SECTION 5: GAME WORLD

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	 Part of the level design for Act 1 of Emerald Hill Zone, including placement of enemies, hazards, mechanics/ items and terrain.  Combining the two with a tiled background – creates a fun playground for the player to move Sonic around at speed.
WHAT MOOD IS BEING INVOKED IN THIS LOCATION?	A hopeful and exciting mood; colours are lush and bright; the music is upbeat and jaunty. This is the start of an adventure, a rescue mission.
WHAT KIND OF MUSIC WILL BE USED FOR THIS LOCATION?	Bright, upbeat music. A basic melody idea is shown below. Fast BPM to stimulate the player to enjoy the intended speed of the game. Should invoke FUN. 
HOW ARE THE LOCATIONS CONNECTED IN THE GAME WORLD?	Automatic linear progression from one Zone to the next after completing the previous Zone and beating the Boss.
LOCATION DETAILS	
NAME:	<i>Chemical Plant Zone</i>
WHAT DOES IT LOOK LIKE?	The use of pipes, metal plates, hazard tape and conveyor belts mimic the interior of some sort of factory or assembly line. A city in bright orange against the backdrop of darkness stands out above the sickly green of the rest of the background, conjuring images of toxic waste and disease. Bright pink 'water' rises from the bottom of the screen, giving a sense of unease at the unnatural colour.
WHAT MOOD IS BEING INVOKED IN THIS LOCATION?	A complete turn around from the last Zone – everything is mechanical, unnatural, bright still but jarringly so. This should invoke a sense of urgency, essentially shocking the player into action as they realise the extent of the antagonist's actions already.
WHAT KIND OF MUSIC WILL BE USED	More urgent, uses of flat and sharp keys to give a sense of distortion or unease later in the melody. Abrupt stops and starts, evoking the idea of a factory, a mechanical

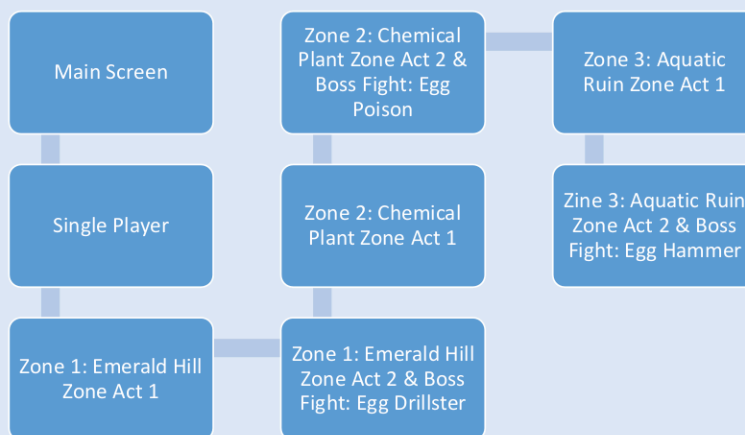
SECTION 5: GAME WORLD

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FOR THIS LOCATION?	place, something so very removed from the brightness and naturalness of the last Zone.
HOW ARE THE LOCATIONS CONNECTED IN THE GAME WORLD?	Automatic linear progression from one Zone to the next after completing the previous Zone and beating the Boss.

GAME FLOW

The gameplay is linear, going from one Zone and Act to the next. If the player runs out of lives in one Act, they are given the option to continue within 30 seconds by pressing 'Enter' and they will start at the beginning of the Zone with a fresh Score and Rings count. However, if they run out of lives again, they will be faced with a 'Game Over' screen and will have to start from the beginning of the game.



Example of the linear gameplay. Multiplayer Mode is much the same, except that the two players are pitted head-to-head in a timed challenge and only three areas are available.

CONTRIBUTING TEAM MEMBER: Beauregard Brown

SECTION 5: GAME WORLD

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SECTION 6: GAME EXPERIENCE

GAME EXPERIENCE

Sonic The Hedgehog 2 is meant to be action-packed and fast-paced, allowing the player to feel the freedom that comes with high-speed gameplay, especially when encountering loops, springs and other extreme terrain.

It has moments of comedy, as seen in idle animations. If the player is inactive for too long, Sonic will tap his foot and put his hands on his hips before looking directly at the player, whereas Tails will start to yawn.

HOW IS THIS FEELING GOING TO BE PRESENTED TO THE PLAYER?

Through the terrain, fast pace and mechanics, this game will allow the player to have a sense of freedom and weightlessness. Items such as Loops, Springs and High-Speed Warp Tubes add an almost childish joy to play, reminiscent of marble runs, pinball machines and other similar toys and games.

ARE THERE ANY SPECIAL MODES OR INTERFACES FOR GAMEPLAY?

Bonus Levels or Special Levels are accessible via Star Gates given the correct number of Rings are collected at the time of activation.

SECTION 6: GAME EXPERIENCE

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WHAT DOES THE PLAYER FIRST SEE WHEN THEY START THE GAME?



Rough idea of the Title Menu for the game, showing Single and Multiplayer options. A 'Settings' widget will be added to the top right corner in the shape of a cog to allow the player to change key bindings and control music and sound effect volume, etc.

WHAT EMOTIONS ARE MEANT TO BE INVOKED BY THE GAME?

Sonic The Hedgehog 2 is meant to evoke a sense of nostalgia, with levels that seem easy but have certain mechanics which can be tricky to master, creating interesting and challenging gameplay. They won't be so difficult as to discourage the player from continuing to play but not easy enough that they become bored.

The fast pace of the game is meant to inspire adventure, a sense of freedom and childish wonder.

SECTION 6: GAME EXPERIENCE

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HOW ARE MUSIC AND SOUND GOING TO BE USED?

Audio cues will be used to provide extra information to the player, such as unique sounds for:

- Interacting with Star Posts, Springs and other items.
- Taking damage and losing Rings.
- Retrieving/ picking up Rings.
- Breaking Power-Up monitors.
- Each Power-Up.
- Jumping, Spin Dashing and stopping abruptly.
- Defeating an Enemy.
- Defeating a Boss.

When the player enters a flooded area, a warning 'Ding' sound will sound at 5, 10 and 15 seconds from initial submergence. The music will suddenly change at 18 seconds to a 12 second track that increases in urgency and pace until the player loses a life due to drowning. This music should make the player feel the need to hurry up and either get out of the water or find an Air Bubble.

HOW DOES THE PLAYER NAVIGATE THE SHELL MENUS/ SCREENS OF THE GAME?



The initial Menu Screen has options for Single or Multiplayer Mode. A 'Settings' tab will be added as well. These are all accessible via WASD, Arrow keys or a controller D Pad or joystick. Selecting an option can be done by pressing 'Enter' on the keyboard or A on the controller.

During gameplay, the Pause menu is accessible by pressing P on the keyboard or the right 'Menu' button on the Xbox controller. The Pause menu will include options such as 'End Current Game', 'Restart Act' (although this will reset Rings, Time and Score), 'Exit to Title Menu', 'Exit to Desktop/ Homepage' and 'Settings'.

CONTRIBUTING TEAM MEMBER:

Beauregard Brown

SECTION 6: GAME EXPERIENCE

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SECTION 7: GAMEPLAY MECHANICS

GAMEPLAY MECHANICS

MECHANIC: Varied terrain including Loops, Breakaway Ledges (disappear after being interacted with or a certain timer after this), Hidden areas, Boosters that can help but also hinder due to enhanced speed.

HAZARD: Enemies; terrain Hazards such as Spikes, Moving Platforms, immovable obstacles such as Blue Blobs.

POWER-UP: Mostly in the form of 'Monitors' that can be broken. Audio and visual cues allow the player to understand when these take effect and wear off amidst action-packed gameplay.

SECTION 7: GAMEPLAY MECHANICS

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MECHANIC DETAILS	
NAME:	Star Post
WHAT DOES IT LOOK LIKE?	A post with a yellow hourglass base, long grey pole and a red circular panel at the top with a smaller black circle and white star motif. The rod will twirl 360° once when interacted with and the circular beacon will light up red and yellow to show it has been activated.  
EFFECT ON PLAYER:	- Saves the player's current game, acts as a checkpoint. - If the player should lose a life, they will respawn at this point, although their Rings will be depleted. - The Score will stay the same as before death and the Timer will remain in motion. - If the player has 50 or more Rings on them at the time of activation, a Star Circle will appear above the Star Post and grant the player access to the Bonus Stage. - The Bonus Stage will only be available once per Star Post and the Rings will be depleted upon returning to the main level.
WHEN WILL IT FEATURE IN THE GAME?	Periodically throughout each level.
MECHANIC DETAILS	
NAME:	Spring
WHAT DOES IT LOOK LIKE?	Red or yellow circular platform mounted on a grey spring.  
EFFECT ON PLAYER:	- When jumping/ landing on the broad side directly, player will be projected in the direction opposite the item. - Vertical Springs propel the player up or down, dependent on the placement. - Horizontal Springs propel the player either to the left or right dependent on which way they face. - Diagonal Springs propel the player diagonally to the spring origin point and are often used to access higher ledges (can form a series of Diagonal Springs.)

SECTION 7: GAMEPLAY MECHANICS

Scott Rogers 'Ten-Pager' Template

WHEN WILL IT FEATURE IN THE GAME?	Throughout the game, most if not all Zones.
MECHANIC DETAILS	
NAME:	High Speed Warp Tube
WHAT DOES IT LOOK LIKE?	A long tube with a cover which can be broken by a well-aimed Spin jump. 
EFFECT ON PLAYER:	They automatically transport the player, sometimes long distances throughout the level, akin to a marble run or silly straw. Once the 'seal' is broken, the player can enter through them to progress in the level. Some may end abruptly and the opening replaced with a Spring.
WHEN WILL IT FEATURE IN THE GAME?	Mostly used in Chemical Plant Zone.
MECHANIC DETAILS	
NAME:	Jump Panel
WHAT DOES IT LOOK LIKE?	A flat orange panel that the player can use to gain height and speed. Usually located over chasms or on ledges.
EFFECT ON PLAYER:	Allows the player to jump higher and move faster when interacted with. Acts almost like a trampoline. If the player approaches a Jump Panel at speed or whilst Spin Dashing, they will be propelled higher and faster. 
WHEN WILL IT FEATURE IN THE GAME?	Throughout, first encountered in Chemical Plant Zone.
MECHANIC DETAILS	
NAME:	Dash Panel
WHAT DOES IT LOOK LIKE?	A large grey contraption with a big red arrow on it. Looks like it belongs in a car wash, the belt spins when interacted with.

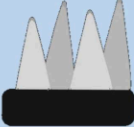
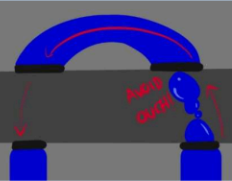
SECTION 7: GAMEPLAY MECHANICS

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EFFECT ON PLAYER:	Propels the player at speed in the direction shown on the device. Usually placed to help the player traverse difficult loops or 'hilly' terrain which may be difficult to without using it.	
WHEN WILL IT FEATURE IN THE GAME?	Throughout the game, first appears in Chemical Plant Zone. Not found in all areas.	
MECHANIC DETAILS		
NAME:	Capsule	
WHAT DOES IT LOOK LIKE?	A large container with a Spring-like item on the top. This contains all the animals collected by Dr. Robotnik and can be opened by pressing the yellow platform.	
EFFECT ON PLAYER:	No effect on the player but jumping on top of the Capsule releases the animals trapped inside and allows the level to come to an end after defeating the Boss.	
WHEN WILL IT FEATURE IN THE GAME?	At the end of Boss battles.	

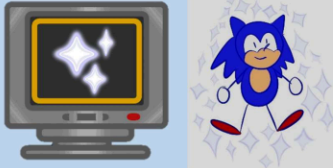
SECTION 7: GAMEPLAY MECHANICS

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HAZARD DETAILS	
NAME:	Spikes
WHAT DOES IT LOOK LIKE?	Four metal spikes that protrude from a surface. They can face any angle and can be arranged separately or in groups for a larger obstacle. Most Spikes are stationary, but others can retract into a surface and reappear at timed intervals. 
EFFECT ON PLAYER:	Player will lose Rings, or in the case that no rings are left, lose a life if contact is made.
WHEN WILL IT FEATURE IN THE GAME?	Throughout the game, most if not all Zones.
HAZARD DETAILS	
NAME:	Rotating Blocks
WHAT DOES IT LOOK LIKE?	Two to four square brightly coloured and patterned blocks that rotate around a central point. Some variants simply lower or rise to create 'stairs'.
EFFECT ON PLAYER:	Used as transport, can be an obstacle in tight areas. Rotating Blocks can crush the player between other Rotating Blocks or against walls and ceilings if care is not taken.
WHEN WILL IT FEATURE IN THE GAME?	Chemical Plant Zone
HAZARD DETAILS	
NAME:	Blue Blobs
WHAT DOES IT LOOK LIKE?	A string of royal blue amorphous spheres which 'jump' from one pipe to another. 
EFFECT ON PLAYER:	If the player encounters these, they will lose their Rings or, in the case they have no Rings left, lose a life.
WHEN WILL IT FEATURE IN THE GAME?	Chemical Plant Zone

SECTION 7: GAMEPLAY MECHANICS

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POWER-UP DETAILS	
NAME:	1-Up
WHAT DOES IT LOOK LIKE?	A monitor with the face of the current player character. 
EFFECT ON PLAYER:	Adds an additional life to the player's counter.
WHEN WILL IT FEATURE IN THE GAME?	Throughout.
POWER-UP DETAILS	
NAME:	Invincible
WHAT DOES IT LOOK LIKE?	A monitor with four-pointed white stars. 
EFFECT ON PLAYER:	Allows the player to automatically defeat enemies upon contact and take no damage from hazards or projectiles whilst in effect. Lasts for 20 seconds.
WHEN WILL IT FEATURE IN THE GAME?	Throughout.
POWER-UP DETAILS	
NAME:	Power Sneakers
WHAT DOES IT LOOK LIKE?	A monitor with one of Sonic's shoes. 
EFFECT ON PLAYER:	Increased movement speed and height whilst jumping. Lasts for 15 seconds. Dedicated jingle plays when acquired, fading back to normal level music once the effect is depleted.
WHEN WILL IT FEATURE IN THE GAME?	Throughout.

SECTION 7: GAMEPLAY MECHANICS

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POWER-UP DETAILS	
NAME:	Shield
WHAT DOES IT LOOK LIKE?	A monitor with a blue sphere. 
EFFECT ON PLAYER:	Prevents the player from taking damage from an enemy, a projectile or hazard. Does not protect against Bottomless Pits, Time Over, Crush or Drowning. Player will be thrown backwards in the usual manner, but no damage dealt. Effect ceases after this.
WHEN WILL IT FEATURE IN THE GAME?	Throughout.
POWER-UP DETAILS	
NAME:	Super Ring
WHAT DOES IT LOOK LIKE?	A monitor with a large golden ring. 
EFFECT ON PLAYER:	Adds 10 Rings to the player's total count
WHEN WILL IT FEATURE IN THE GAME?	Throughout.
POWER-UP DETAILS	
NAME:	Random
WHAT DOES IT LOOK LIKE?	A monitor with a red question mark on a white background.
EFFECT ON PLAYER:	Random Power Up effect.
WHEN WILL IT FEATURE IN THE GAME?	Only features during Multiplayer gameplay.

SECTION 7: GAMEPLAY MECHANICS

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COLLECTIBLE ITEMS

Chaos Emeralds can be collected to allow the player to reach the 'Good End' or 'True End' of the game.



Upon completion of the game and defeating the last Boss, a cutscene will transpire, as shown in the storyboard above. This will play regardless of whether all the Chaos Emeralds are collected throughout the game or not, although not collecting all of them won't trigger Super Sonic to appear. The 'Bad End' shows Dr. Robotnik juggling the Chaos Emeralds with 'Try Again'. This has no effect on the overall gameplay or completion status.

COLLECTIBLE DETAILS

NAME:	Chaos Emerald
WHAT DOES IT LOOK LIKE?	Chaos Emeralds look like a generic 'Diamond Cut' shape, available in 7 different colours. 
BENEFIT FOR PLAYER:	If the player collects all the Chaos Emeralds, upon completing the game the antagonist Dr. Robotnik will not succeed in his endeavours. If the player does not collect all the Chaos Emeralds a different sequence will play upon completion of the game.
WHEN WILL IT FEATURE IN THE GAME?	Chaos Emeralds are found in Bonus Levels throughout the world. They can only be reached by finishing the Bonus Levels.
CAN IT BE USED AS CURRENCY?	No

SECTION 7: GAMEPLAY MECHANICS

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**WILL IT EARN PLAYERS
AN ACHIEVEMENT?** No

GAME ECONOMY

The number of Rings a player has will determine only three things:

- Whether they have enough when activating Star Posts to initiate access to the Bonus Level.
- Their 'safety' when playing, as no Rings is equivalent of having no buffer.
- Their final Score at the end of the Act when passing the Goal Plate/ after defeating the Boss.

CONTRIBUTING TEAM MEMBER: Beauregard Brown

SECTION 7: GAMEPLAY MECHANICS

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SECTION 8: ENEMIES

LIST OF ENEMIES

Emerald Hill Zone:

- Buzzer
- Coconuts
- Masher

Chemical Plant Zone:

- Grabber
- Spiny
- Blue Blob
-

Further Zones...

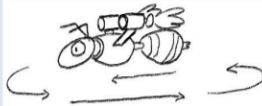
ENEMY DETAILS

NAME:	Coconuts
WHAT DOES IT LOOK LIKE?	Coconuts looks like a mechanical or cyborg monkey with red and grey plates. 
ATTACKS:	Moves up and down Palm Trees, throws coconuts at the player when in range.

SECTION 8: ENEMIES

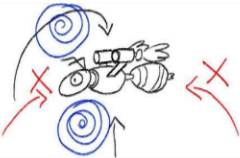
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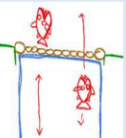
		
WHEN WILL IT FEATURE IN THE GAME?	Featured in Emerald Hill Zone, Acts 1 and 2	
HOW DOES THE PLAYER DEFEAT IT?		Jumping on top of the enemy or from below. Jumping and hitting the enemy from either side or without being in a protective Spin Dash stance (will assume this pose naturally if jumping) results in the player losing rings, or if no rings are available, losing a life.
WHAT DOES THE PLAYER EARN FOR DEFEATING THEM?	100 points, stacks if enemies are defeated in quick succession.	

ENEMY DETAILS		
NAME:	Buzzer	
WHAT DOES IT LOOK LIKE?	A robotic bee or wasp-like creature with a jet pack on its back rather than wings. 	
ATTACKS:	Moves from side to side when idle. Will fire a round projectile at the player when in range. Projectile is limited to one every pass in either direction.	
WHEN WILL IT FEATURE IN THE GAME?	Featured in Emerald Hill Zone, Acts 1 and 2	
HOW DOES THE PLAYER DEFEAT IT?	Jumping on top of the enemy or from below. Jumping and hitting the enemy from either side or without being in a protective spin-dash stance (will assume this pose naturally if jumping) results in the player losing rings, or if no rings are available, losing a life.	

SECTION 8: ENEMIES

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WHAT DOES THE PLAYER EARN FOR DEFEATING THEM?	100 points, stacks if enemies are defeated in quick succession.	

ENEMY DETAILS		
NAME:	Masher	
WHAT DOES IT LOOK LIKE?	A robotic fish that opens and closes its mouth as it jumps up from the waterfalls. 	
ATTACKS:	Jumps up from Waterfalls. Damages player if they get in the path of movement. 	
WHEN WILL IT FEATURE IN THE GAME?	Featured in Emerald Hill Zone, Acts 1 and 2	
HOW DOES THE PLAYER DEFEAT IT?	Jumping on top of the enemy. Jumping and hitting the enemy from either side or without being in a protective spin-dash stance (will assume this pose naturally if jumping) result in the player losing rings, or if no rings are available, losing a life. Hitting a Masher from below is difficult but not impossible due to the height they jump above the footbridge. 	

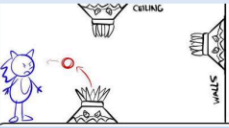
SECTION 8: ENEMIES

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WHAT DOES THE PLAYER EARN FOR DEFEATING THEM?	100 points, stacks if enemies are defeated in quick succession.	
ENEMY DETAILS		
NAME:	Grabber	
WHAT DOES IT LOOK LIKE?	Grabbers look like large black and yellow spiders. They hang from ceilings and drop on the player before hoisting themselves back up. 	
ATTACKS:	The Grabber will drop suddenly on the player if they are careless and will hold them in the air, causing the player to lose their rings, or a life. The player can get free by pressing the left and right buttons in quick succession. If this is unsuccessful the Grabber will self-detonate and cause further damage to the player. 	
WHEN WILL IT FEATURE IN THE GAME?	Featured in Chemical Plant Zone, Acts 1 and 2	
HOW DOES THE PLAYER DEFEAT IT?	By jumping in a Spin Dash stance on top of or at the sides of the Grabber. It is best not to attack from below since the player may get caught by the enemy. 	
WHAT DOES THE PLAYER EARN FOR DEFEATING THEM?	100 points, stacks if enemies are defeated in quick succession.	

SECTION 8: ENEMIES

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ENEMY DETAILS	
NAME:	<i>Spiny</i>
WHAT DOES IT LOOK LIKE?	Based on a sea urchin, a Spiny will stick to surfaces such as floors and walls and has spiky spines protruding from it. 
ATTACKS:	Spiny has sharp spikes protruding from it, which will damage the player if they don't utilise the Spin Dash stance when jumping. They also fire projectiles towards the player when in range. 
WHEN WILL IT FEATURE IN THE GAME?	Featured in Chemical Plant Zone, Acts 1 and 2
HOW DOES THE PLAYER DEFEAT IT?	Jumping on top of the Spiny when it is not firing a projectile. The player must time this and use the Spin Dash stance when jumping to avoid damage. 
WHAT DOES THE PLAYER EARN FOR DEFEATING THEM?	100 points, stacks if enemies are defeated in quick succession.

SECTION 8: ENEMIES

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LIST OF BOSS CHARACTERS

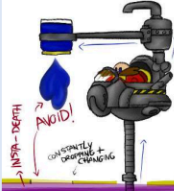
Emerald Hill Zone: Egg Drillster
Chemical Plant Zone: Egg Poison
Aquatic Ruins Zone: Egg Hammer
Further Zones...

BOSS CHARACTER DETAILS

NAME:	Egg Drillster
WHAT DOES IT LOOK LIKE?	A red and grey dune buggy with a giant drill on the front. It drives in on autopilot, allowing Dr. Robotnik to fly in and attach his Egg Pod to the contraption. 
ATTACKS:	Will charge at the player from either side of the screen. If the player damages the Egg Drillster a total of 7 times without then administering the last hit, the drill will detach and fly straight forward when the Boss next emerges on screen. 
WHEN WILL IT FEATURE IN THE GAME?	Instead of a Goal Plate at the end of Emerald Hill Zone Act 2
HOW DOES THE PLAYER DEFEAT IT?	Jumping on the Egg Drillster a total of 8 times. The player will take damage from the drill, so this must be avoided. Jumping with a Spin Dash or hitting the Egg Drillster from behind with a Spin Dash will damage it. Once defeated, the Egg Drillster will start to smoke and break down and the Egg Pod will detach, allowing Dr. Robotnik to fly off. 

SECTION 8: ENEMIES

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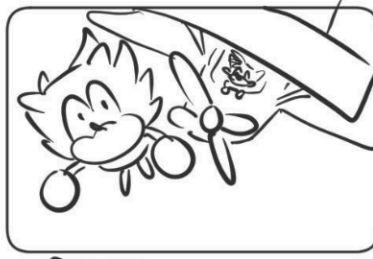
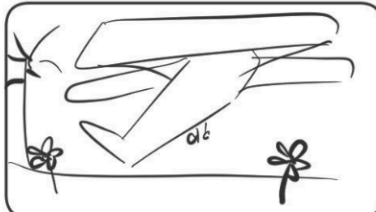
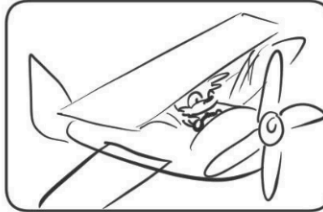
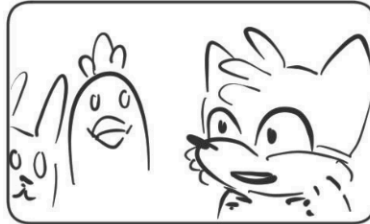
WHAT DOES THE PLAYER EARN FOR DEFEATING THEM?	Access to the next Zone and completion of the Act.	
BOSS CHARACTER DETAILS		
NAME:	Egg Poison	
WHAT DOES IT LOOK LIKE?	An airborne pod with a large container and tube attached which sucks up Mega Mack, a harmful poison.	
ATTACKS:		Egg Poison will suck up Mega Mack from the flooded terrain and deposit it in the player's vicinity. The shifting flooring makes avoiding these attacks difficult, as being dropped into the Mega Mack from one of these platforms will result in the player instantly losing a life.
WHEN WILL IT FEATURE IN THE GAME?	Instead of a Goal Plate at the end of Chemical Plant Zone Act 2	
HOW DOES THE PLAYER DEFEAT IT?		Jumping on the Egg Poison a total of 8 times. It will begin to detonate
WHAT DOES THE PLAYER EARN FOR DEFEATING THEM?	Access to the next Zone and completion of the Act.	
CONTRIBUTING TEAM MEMBER:		
Beauregard Brown		

SECTION 8: ENEMIES

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SECTION 9: CUTSCENES

CUTSCENES



ROLL CREDITS

SECTION 9: CUTSCENES

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CUTSCENE DETAILS <i>(use this table for each unique cutscene you include)</i>	
VISUAL STYLE:	Hand-drawn, uncoloured comic panels against a white background.
BRIEF DESCRIPTION OF SCENE:	Brief comic-like panels showing the aftermath of the final scene. Changes dependent on whether the player has collected all the Chaos Emeralds, although this doesn't have much bearing on the overall gameplay. The scene shows an explosion with 'Tails' and other forest animals looking on. Tails looks like he is in awe. He is shown getting into his plane and taking off. If the player has collected all the Chaos Emeralds, Super Sonic will be shown flying beside him with a flock of birds tailing and then cuts to Super Sonic from the front with Tails in the plane behind. If all the Chaos Emeralds are not collected, Sonic lands on the front of the plane and the scene continues in this fashion.
WHEN WILL IT FEATURE IN THE GAME?	Upon completion of the game.
PURPOSE:	To wrap up the game and provide closure for the player.
CONTRIBUTING TEAM MEMBER:	Beauregard Brown

SECTION 9: CUTSCENES

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SECTION 10: BONUS MATERIALS

BONUS MATERIALS



TIME 00:51
RINGS 5

TIME 00:55
RINGS 3

TIME 00:58
RINGS 1

Multiplayer Mode

Multiplayer Mode allows two people to play alongside each other in a competitive race against time.

The screen will split in two, with Sonic or Player 1 being shown at the top and 'Tails' or Player 2 at the bottom of the screen.

Both screens will show the character's Lives and the players Score, Rings and the collective Time.

If one player completes an Act, the remaining player will be put on a countdown before losing if they are unable to complete the level in time.

The final Score is based on 5 categories – Item Boxes broken, total Rings collected, Rings held upon completion, Score and Time upon completion.

There are different 'Power-Ups' available in Multiplayer Mode such as 'Random', a random effect; 'Eggman Monitor' which damages the player and 'Teleporter' which switches the players' places.

There are only 3 areas playable via competitive Multiplayer Mode.



RINGS

Bonus Levels

Bonus Levels are accessible through Star Posts when holding 50 or more Rings.

This level is in 2.5D forward scrolling rather than the usual side-scrolling of the main game.

The player must move Sonic (and Tails follows automatically behind) to avoid obstacles and complete the challenge of collecting a set number of Rings to qualify collecting a Chaos Emerald at the end of the level.

If the player cannot keep up and reach the set quota, they will be transported back to the main level at the Star Post they interacted with but will be left without any Rings as the Bonus Level takes these.

SECTION 10: BONUS MATERIALS

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REPLAY VALUE

Multiplayer allows the player to enjoy the game with others.

The addition of Bonus Levels makes the gameplay more challenging. It is not imperative that the player collects all the Chaos Emeralds as it only changes the cut scene/ result at the end of the game but for those who like a challenge, collecting all of them and 'beating' the game fully is a worthy goal.

CONTRIBUTING TEAM MEMBER:

Beauregard Brown

SECTION 10: BONUS MATERIALS

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Bibliography and References

Sonic 2 Document Title, Sonic The Hedgehog | Text Effect Generator, 2020, textstudio.com. [Online]. Available: <https://www.textstudio.com/logo/sonic-the-hedgehog-414>. Accessed: Nov. 30, 2025.

"What Do The Labels Mean?" | PEGI Public Site, Pan European Game Information, 2017, pegi.info. [Online]. Available: <https://pegi.info/what-do-the-labels-mean>. Accessed: Nov. 20, 2025.

"Ratings Guide - ESRB Ratings", Entertainment Software Rating Board, 2019, ESRB.org. [Online]. Available: <https://www.esrb.org/ratings-guide/>. Accessed: Nov. 20, 2025.

"Sonic The Hedgehog 2 – Play the free online game", 2025, allsonicgames.net. [Online]. Available: <https://www.allsonicgames.net/sonic-the-hedgehog-2.php>. Accessed: Nov. 01, 2025 – Feb. 01, 2026.

P. McNally, "Sonic The Hedgehog 2 Review," *Bad Influence!*, no. 2, pp. 46–47, 1993. [Online]. Available: https://retrocdn.net/images/8/80/BadInfluence%21_UK_02.pdf. Accessed: Jan. 06, 2026.

S. 'Robo' Hickman, "Sonic 2 16 Page Pull Out and Keep Guide", *Sega Pro*, Paragon Publishing Ltd, vol. Christmas Special 1992, no. 15, pp. 51–59, Dec. 1992. Available: https://retrocdn.net/images/1/14/SegaPro_UK_15.pdf. Accessed: Jan. 06, 2026.

"Sonic The Hedgehog (1991) Gallery", Josiahblaze 2022, Hirokazu Yasuhara 1990, sonic.fandom.com. [Online]. Available: [https://sonic.fandom.com/wiki/Sonic_the_Hedgehog_\(1991\)/Gallery?file=Ap1KNh.jpg](https://sonic.fandom.com/wiki/Sonic_the_Hedgehog_(1991)/Gallery?file=Ap1KNh.jpg). Accessed: Nov. 29, 2025.

"Sonic The Hedgehog 2/ Gallery", Multiple Contributors, 2026, sonic.fandom.com. [Online]. Available: https://sonic.fandom.com/wiki/Sonic_the_Hedgehog_2/Gallery. Accessed: Nov. 01, 2025 – Feb. 01, 2026.

"Steam Homepage", Valve, 2026, store.steampowered.com. [Online]. Available: <https://store.steampowered.com/>. Accessed: Nov. 02, 2025.

"Xbox Series S", Microsoft, 2026, xbox.com. [Online]. Available: <https://www.xbox.com/en-gb/consoles/xbox-series-s?xr=shellnav>. Accessed: Nov. 02, 2025.

"Sonic 2 – Emerald Hill Zone", IsaiahFlores219, 2016, musescore.com. [Online]. Available: <https://musescore.com/user/7153551/scores/2622821>. Accessed: Dec. 30, 2025.

SECTION 10: BONUS MATERIALS

Scott Rogers 'Ten-Pager' Template

"MS2 Chemical Plant Zone", Angel Heights, 2018, musescore.com. [Online]. Available:
<https://musescore.com/user/28122029/scores/5007795>. Accessed: Jan. 01, 2026.

"Sonic 2 MD Map Emerald Hill Zone BackGround.png", Black Squirrel, 2019, sonicretro.org. [Online].
Available: https://info.sonicretro.org/File:Sonic2_MD_Map_EHZ_BG.png. Accessed: Jan. 10, 2026.

"Sonic 2 Map Emerald Hill Zone 1.png", Nineko, 2011, sonicretro.org. [Online]. Available:
https://info.sonicretro.org/File:S2_map_EHZ1.png. Accessed: Jan. 10, 2026.

"Sonic 2 General FAQ" - IGN, Nintendosp, 2003 (Updated 2013), ign.com. [Online]. Available:
<https://www.ign.com/articles/2003/06/16/sonic-classics-3-in-1-sonic-compilation-general-faq-424263>.
Accessed: Dec. 26, 2025.

"Sonic The Hedgehog 2 (Sega Genesis) – Endings", VideoGaming4U, 2012, YouTube. [Online]. Available:
https://www.youtube.com/watch?v=m_QFn2ASdco. Accessed: Jan. 13, 2026.

"All Bad Endings In Sonic Games", DanielGamerDX, 2022, YouTube. [Online]. Available:
<https://www.youtube.com/watch?v=LlgdXVUBk2M>. Accessed: Jan. 16, 2026.

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ACCA 4033 Game Design Document Beauregard Brown

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GRADEMARK REPORT

FINAL GRADE

70/100

GENERAL COMMENTS

This Game Design Document clearly and thoroughly documents Sonic the Hedgehog 2, with strong structure and detailed breakdowns of mechanics, enemies, and progression.

The document functions well as a practical design reference, with clear organisation and comprehensive coverage of core systems.

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