

Rocket Mouse: game design document

1. Overview

- **Title:** Rocket Mouse
- **Engine:** Unity (3D project, 2D pixel-art look)
- **Genre:** Retro arcade vertical space shooter
- **Input:** Mouse only
- **Length:** 10 levels, difficulty rising each level
- **Learning goal:** teach how additive (RGB) light mixing works: three primaries, how they combine, and that all three together make white.

2. Core gameplay

Controls

Input	Action
Move mouse	Plane follows the cursor
Left click	Red channel
Middle click	Green channel
Right click	Blue channel
Hold buttons	Charge/mix a color; the plane glows in that color
Release	Fire the mixed color
Hold all three (bar full, Level 9+)	White power move

Color combinations

Buttons	Color
Left	Red
Middle	Green
Right	Blue
Left + Middle	Yellow
Middle + Right	Cyan
Left + Right	Magenta
All three	White (power move only)

There is no "no-click" color: a shot always needs at least one button.

Rules

- **Matching color:** the Shade bursts into light and is freed. Points are awarded, and the White bar fills (from Level 9).
- **Wrong color:** the Shade absorbs the shot, flashes, and speeds up briefly. The combo resets. From Level 9, a wrong shot also drains some of the White bar.
- **Damage:** touching a Shade or being hit by an enemy shot costs 1 heart.
- **Escaped Shades:** Shades that leave the bottom of the screen cost points, not hearts.
- **Combo:** 5 correct frees in a row gives bonus points (and extra White bar fill from Level 9).
- **Stars:** each level awards 1-3 stars based on accuracy and hearts remaining.
- **Colors carry over:** the player keeps every unlocked color, even when a ship is destroyed.

White power move (Level 9+)

- **Fills from:** correct frees (small amount) and combos (bonus).
- **Drains from:** wrong-color shots.
- **Effect:** a white shockwave frees every Shade on screen.
- **Boss use:** in Level 10, White is the only thing that breaks The Grey Heart's shield.

3. Ships

Ship	Levels	Hearts	Speed	Fire rate	Feel
Starling (starting plane)	1 - 5 (first half)	3	Medium	Medium	Reliable, balanced
Sparrow (small plane)	5 (second half) - 7	2	Slow	Slow	Fragile; the player feels the loss
Solar Wing (fast plane)	8 - 10	4	Fast	Fast	Powerful comeback

Ship destruction in Level 5 is a **scripted story event**, never a fail state.

4. Enemies ("Shades")

Shades are colors corrupted by the Grey. The player frees them with their matching light.

Enemy	Color	Buttons	Behavior	First level
Ember	Red	L	Dives straight down, fast	1
Moss	Green	M	Drifts slowly in a wave pattern	2
Drip	Blue	R	Moves in steps, fires slow falling drops	3
Spark	Yellow	L+M	Zigzags quickly	4
Tide	Cyan	M+R	Arrives in swarms of 4-6	5
Wisp	Magenta	L+R	Blinks and teleports short distances	6
Prism	Shifting	Changes	Cycles color every 2 seconds; hit it in its current color	7
Knot	Mixed	Varies	Each correct part removes that channel (Yellow hit with Red leaves Green); freed when no color remains	8

Enemy	Color	Buttons	Behavior	First level
Hollow	Grey shell	White, then core color	Grey shell absorbs all colors; White breaks it and reveals a colored core to hit	9

5. Bosses

The Devourer (Level 5, scripted)

A giant grey void leviathan. It ambushes the Starling mid-level and destroys it. It cannot be beaten here; it is a story moment.

The Grey Heart (Level 10, final boss)

1. **Shell phase:** releases fast waves of primary Shades (Red, Green, Blue).
2. **Mix phase:** releases mixed Shades and Knots; its body shifts color like a Prism. Hitting it in its current color damages it.
3. **Core phase:** a grey shield covers its core. The White power move cracks the shield, then the player hits the exposed core with the color it shows. Repeat 3 times.

6. Level plan

#	Name	Ship	New in this level	Waves	Challenge
1	First Light	Starling	Tutorial + Red	3	Slow, one enemy at a time
2	Green Drift	Starling	Green	4	Two colors mixed together
3	Blue Deep	Starling	Blue	5	All primaries; enemy shots begin
4	Yellow Storm	Starling	Yellow (first mix)	5	Learning to hold two buttons
5	The Ambush	Starling → Sparrow	Crash + Cyan	6	Crash halfway; continue with fewer hearts
6	Limping Through	Sparrow	Magenta	6	All 6 colors on a weak ship
7	Shifting Skies	Sparrow	Prism enemies	7	Timing and color reading
8	New Wings	Solar Wing	Fast plane + Knot enemies	7	Speed; breaking colors apart
9	White Dawn	Solar Wing	White power bar + Hollows	8	Managing the power bar
10	Heart of the Star	Solar Wing	Everything	Boss	Final test

Inside each level: the first wave is easy, middle waves get faster and mix colors, and the last wave is the hardest. End on a peak, then play the narration.

Difficulty dials: enemy speed, spawn rate, number of colors on screen at once, reaction window, enemy shots, and (from Level 9) White bar drain.

Level 1 tutorial

1. "Move your mouse": fly through 3 light rings.
2. "Left click to shine Red": free 3 slow Embers.

3. "Match the color": only matching colors work.
4. A short final wave, then the Green unlock.

Level 5: The Ambush

- **First half:** Starling with Red, Green, Blue and Yellow.
 - **Midpoint:** the screen darkens, The Devourer appears, and the Starling is crushed (cutscene).
 - **Second half:** the player flies the Sparrow. Luma finds Cyan in the salvaged core.
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7. Visual progression

Early levels are almost grey. Backgrounds become more colorful as colors are freed; the ending is full color. The world shows the player's progress.

8. Narrative: *Rocket Mouse and the Grey Silence*

Characters

- **Rocke:** a young pilot from a small grey mining asteroid who has never seen real color.
- **Luma:** the ship's AI, living inside a glowing light core. Warm, a little funny; she narrates the story.
- **The Grey:** an emptiness that eats color. The Shades are colors it has corrupted.

Premise

The Great Star once lit the galaxy with pure white light. The Grey swallowed it, and its colors scattered across space, twisted into frightened monsters called Shades. Rocke finds an old plane with a strange light core inside. The core wakes up.

Story mechanic: when a ship is destroyed, Luma's core is saved and fitted into the next ship, which is why the player keeps every color.

Level 1 — First Light

Intro > Luma: "Systems online... Hello, pilot. I'm Luma. My core holds a spark of the old Star, just one color for now. Red. Let's see if you can shine it."

Outro > Luma: "Did you see that? The Shade didn't die. It *remembered* what it was, and went home to the sky. Wait... I'm feeling something new. Green."

Level 2 — Green Drift

Intro > Luma: "Green is the color of growing things. The Shades here are slow and sad. Be gentle, but be quick."

Outro > Rocke: "Every one we free makes the sky a little brighter." > **Luma:** "And makes me a little stronger. Here comes Blue."

Level 3 — Blue Deep

Intro > Luma: "Red, Green, Blue. These three are the roots of every color there is. Master them, and you can make anything."

Outro > Luma: "Pilot... I think the three colors can mix. Try holding two at once."

Level 4 — Yellow Storm

Intro > **Luma**: "Red and Green light together make Yellow. Strange, right? Light doesn't mix like paint. It adds."

Outro > **Rocke**: "Something's following us. Something big... and grey." > **Luma**: "Stay calm. Keep flying."

Level 5 — The Ambush

Intro > **Luma**: "The Grey knows we're here now. Every color we free is one it has lost."

Midpoint (crash) > **Luma**: "Rocke, PULL UP. It's the Devourer! Hull breaking... Eject! EJECT!" > *(Silence. Darkness. Then a faint glow.)* > **Luma**: "...Still here. I grabbed my core before the plane went. There's an old scout ship nearby, small but alive. And Rocke... the crash cracked something open in me. Cyan."

Outro > **Rocke**: "We lost the Starling." > **Luma**: "We lost a ship. We didn't lose the light."

Level 6 — Limping Through

Intro > **Luma**: "This little Sparrow can't take many hits. We fly smart now, not fast. And look, Red and Blue together make Magenta."

Outro > **Luma**: "Six colors, pilot. Only one left to find, and it isn't a color at all. It's all of them."

Level 7 — Shifting Skies

Intro > **Luma**: "These Shades can't decide what they are. They're changing colors, confused. Watch closely, and free them when they show their true light."

Outro > *(The freed colors gather around the Sparrow, glowing.)* > **Luma**: "Rocke... they're not leaving. They want to help."

Level 8 — New Wings

Intro > *(The freed colors swirl together and form a brand-new ship.)* > **Luma**: "The colors we saved built us wings. Meet the Solar Wing. Fast, strong, and full of light. Let's go get our Star back."

Outro > **Luma**: "Some Shades are knotted together now. Pull them apart one color at a time. You're ready for what's next."

Level 9 — White Dawn

Intro > **Luma**: "All six colors are inside me now. If I bring them together... Pilot, feel that? That's **White**. The light of the old Star itself. Fill the bar, then let it shine."

Outro > **Luma**: "The Hollows were guarding something. The Grey Heart is just ahead. That's where the Star was swallowed."

Level 10 — Heart of the Star

Intro > **Rocke**: "Luma, whatever happens..." > **Luma**: "I know. Just fly, Rocke. We finish this together."

During the boss > Phase 2 — **Luma**: "It's stealing colors! Match what it shows you!" > Phase 3 — **Luma**: "Its core is shielded. Only White can break it. NOW, Rocke!"

Ending > *(The Grey Heart cracks. Pure white light pours out, and the Great Star reignites.)* > **Luma**: "Look, Rocke. Look at all of it." > *(Rocke's grey home asteroid slowly fills with color for the first time.)* > **Rocke**: "So this is what color looks like." > **Luma**: "No, pilot. This is what light looks like when it's free." > > **THE END**

What the story teaches

- Levels 1-3: the three primaries of light.
- Level 4: light mixes by adding, unlike paint.
- Levels 5-6: the other two secondaries.
- Level 8: mixed colors can be broken back into parts.
- Level 9: all colors of light together make white.