Instrument Duel

A Rhythm-Based Clicker Game with Performance-Driven Progression

1. Game Overview

Instrument Duel is a browser-based rhythm and clicker hybrid game where musical performance replaces traditional combat mechanics.
Instead of defeating enemies through physical attacks, players compete against opponents by performing musical note sequences with greater accuracy, timing, and consistency.

Each level represents a musical duel. The player must outperform the opponent by achieving a higher score within a predefined rhythm sequence. Even when the player fails to defeat an opponent, progress is still rewarded through an in-game currency system, allowing long-term progression via a market system.

The game is designed to merge skill-based rhythm gameplay with clicker-style progression, where failure contributes to future success.

2. MDA Framework

2.1 Mechanics

Mechanics are the explicit rules and systems the player interacts with.

1. **Timed Mouse Input**
   Players must click the correct instrument key using the mouse at a precise moment when a note reaches the hit line.
2. **Hold Notes**
   Certain notes require the player to hold the mouse button for a specific duration. Releasing too early results in penalties.
3. **Accuracy Windows**
   Each note is evaluated using timing windows (Perfect / Good / Miss), directly affecting score and combo progression.
4. **Combo System**
   Consecutive successful inputs increase a combo counter, leading to higher score multipliers.
5. **Score-to-Currency Conversion**
   At the end of each level, the player’s score is converted into in-game currency, regardless of success or failure.
6. **Market Upgrades**
   Players can purchase permanent upgrades that modify gameplay parameters (timing tolerance,

score multipliers, combo thresholds).

2.2 Dynamics

Dynamics describe how mechanics interact during play and shape player behavior.

1. **Performance Pressure**
   Since the player competes against an opponent's expected score, each mistake increases tension and urgency.
2. **Risk vs. Reward Decision-Making**
   Hold notes offer higher rewards but introduce higher risk, forcing players to decide between safety and optimization.
3. **Gradual Empowerment**
   Market upgrades slowly reduce punishment severity, allowing players to overcome previously impossible challenges.
4. **Failure as Progress**
   Losing a level still grants currency, transforming failure into a productive outcome rather than a dead-end.
5. **Strategic Investment**
   Players must decide which upgrades to purchase based on personal weaknesses (timing, combos, holds).
6. **Mastery Through Pattern Recognition**
   Difficulty emerges from rhythmic patterns rather than speed alone, encouraging learning and adaptation.

2.3 Aesthetics

Aesthetics describe the emotional experience the game aims to evoke.

Primary Aesthetic: Challenge & Progression

The game emphasizes:

- Satisfaction from mastering rhythmic patterns
- Motivation through visible improvement
- Empowerment as previously difficult levels become manageable

Secondary aesthetics include:

- Rivalry, through score comparison against opponents
- Flow, achieved through rhythmic consistency and focus

3. Game Loop Design

This section explains the different layers of gameplay loops, from moment-to-moment interaction to long-term progression.

3.1 Main Game Loop

The core loop occurs continuously during gameplay:

1. A note approaches the hit line
2. The player performs a timed mouse input
3. The system evaluates accuracy
4. Score and combo values are updated
5. The loop repeats until the rhythm sequence ends

This loop defines the moment-to-moment skill challenge of the game.

3.2 Secondary Loops

3.2.1 Combo Management Loop

- Successful inputs increase combo
- Mistakes reset combo
- Higher combos increase score multipliers

This loop creates sustained tension and rewards consistency.

3.2.2 Hold Note Decision Loop

- The player chooses whether to fully commit to a hold note
- Early release risks penalties
- Successful completion yields higher rewards

This introduces micro-level risk assessment within gameplay.

3.2.3 Progression Loop (Clicker Layer)

- Level ends
- Score is converted into currency
- Currency is spent in the market
- Player performance improves
- The level is retried or the next level is attempted

This loop ensures long-term engagement and improvement.

3.3 Meta Progression Loop

Across multiple sessions:

- Currency accumulates
- Upgrades stack permanently
- New levels unlock
- Older levels remain replayable

This loop supports replayability and reinforces the clicker nature of the game.

4. Design Intent and Originality

Although inspired by rhythm games and clicker progression systems, Instrument Duel differentiates itself by:

- Replacing combat with performance comparison
- Treating failure as a resource rather than punishment
- Combining precision-based skill with long-term progression

The design intentionally avoids automation, ensuring that player skill remains central while progression systems reduce frustration rather than difficulty.

5. Conclusion

Instrument Duel is designed as a skill-based clicker game where mastery, consistency, and strategic progression are equally important.
By combining rhythm mechanics with market-driven empowerment, the game provides a balanced experience that rewards both short-term performance and long-term investment.