# THIEF CHASE
# GAME DESIGN DOCUMENT
## JASH ENTERTAINMENT
### [ TECHNICAL TEST ]

**Project Description**

This design document describes a game designed by combining the core concept of one game and a mechanic of another.

Concept from: MISSILES.
Link:
https://play.google.com/store/apps/details?id=pl.macaque.Missiles&hl=en-IN

Mechanic from: COLOR SWITCH CLASSIC MODE.
Link:
https://youtu.be/oCKaLiyqvY4?t=89

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## 1. Characters
**Thief Car:** Player-controlled vehicle.
**Cop Cars:** Enemy vehicles chasing the thief car.

## 2. Story
### 2.1. Theme and Genre
"Thief Chase" is a mobile game set in a city where players take on the role of a daring thief attempting to evade pursuit by law enforcement while collecting colored tokens to unlock new cars.

## 3. Gameplay
Walkthrough:
- Game starts
- Thief car spawns with a random color(say blue)
- Thief starts to look for tokens
- Cop cars spawns outside of the camera view
- Cops chase the player
- Thief car collects blue tokens, currency increases
- Thief collects boosters
- Thief collides with a traffic cone, get fender bender damage
- Thief collides with a building, gets critical damage
- Two cop cars collide with each other, gets exploded
- Thief car collides with a cop car. GAME OVER
- Player can watch an ad to respawn.

**Core Loop:**
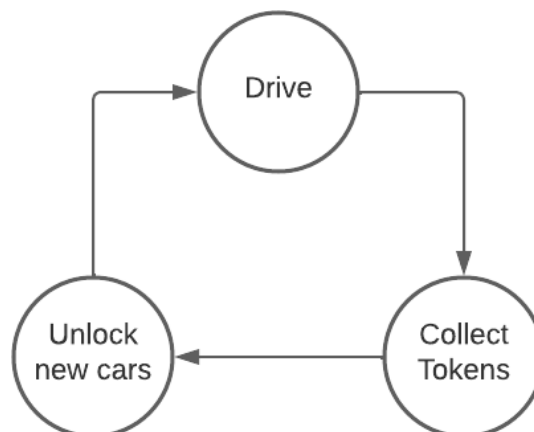
### 3.1. Goal
The goal is to collect as many colored tokens as possible while avoiding collisions with cop cars. Each token collected changes the color of the thief car.

### 3.2. User Skills
Players need quick reflexes and strategic planning to navigate the traffic-filled streets and dodge pursuing cop cars.

### 3.3. Game Mechanics

| Mechanics | Description |
|---|---|
| Joystick Controls | Use a joystick to steer the thief car. |
| Token Collection | Collect tokens of the same color as the thief car to earn in-game currency. |
| Color Switching | Collecting a token of the same color as of the car to change color. |
| Boosters | Various boosters like speed boosts, oil slicks, and bombs enhance gameplay. |

### 3.4. Boosters

| Booster | Description |
|---|---|
| Speed Boost | Increases the thief car's speed for a limited time. |
| Oil Slick | Drops oil behind the thief car, causing pursuing cop cars to slip. |
| Bomb | Destroys nearby cop cars. |

### 3.5. Progression and Challenge

As players progress, the speed and number of pursuing cop cars increase, making the game more fun and challenging.

### 3.6. Win and Lose Conditions

| Conditions | Description |
|---|---|
| Win | Collect tokens and evade cop cars to earn points and unlock new cars. |
| Lose | Colliding with a cop car, collecting a token of a different color, trying to pass through a different coloured trap/obstacle ends the game. |

### 3.7. Daily Reward System

| Reward | Description |
|---|---|
| Logging in streak | Players get a small reward in primary currency for logging in daily. Rewards increase if streak is maintained. |
| Lucky wheel | Players can spin a lucky wheel everyday to get rewards such as tokens or boosters. |

### 3.8. Milestone Rewards

| Milestone | Reward |
|---|---|
| Collect 10 tokens in a single run. | 1x Speed up booster |
| Make cop cars collide 5 times | 1x Shield booster |
| Travel 1 km in total | 2x Speed up boosters |

| | |
|---|---|
| Travel 200m without changing color. etc. etc. | 2x Bomb boosters |

### 3.9. AI Behaviour

Cop Car AI behavior:
- ● Cop cars will spawn outside the player camera view and chase the player as soon as they spawn.
- ● Cop cars can be tricked by going in circles to not let them crash into the player(reference: MISSILES).
- ● A cop car will explode if it collides with another cop car(s).
- ● There is no color coding on the cop cars, hence they can go through any color coded traps that the player may not be able to pass through.

### 3.10. Player

Player is a thief car which roams around procedurally generated environments in which the motive of the player is to collect as many tokens as possible while dodging the cop cars chasing the thief car.

| Characteristics | Value |
|---|---|
| Health | Base car: 2 |
| Can collect boosters | Yes |
| Can collect tokens | Yes |
| Hurt by small objects like traffic cones, dustbins etc? | Yes (0.5 damage) |
| Hurt by colliding with buildings and cop cars? | Yes (1 damage) |

## 4. World and Level Design

The game world consists of procedurally generated environments.
Possible environments:
- - Parking lot

- City



There can be different aesthetics that will change the entire look. Present in [Other Ideas](#)

### 5. Art Style and references

The art style should be colorful and must have a low poly cartoonish look, with detailed vehicle designs and vibrant environments.

**Camera reference:** Top down

**Graphics references:** Low poly, solid colors.

**Thief car reference:**

**Cop car reference:**



**Rough Mockup:**

## 6. Music and Sounds

Catchy background music and sound effects enhance the gameplay experience, with dynamic music changes based on player actions.

**In-game background music:**
- Intense chase music to give the player a sense of tension.

**Fender bender sfx:**
- Small crash sfx

**On collision with a large object or a cop car:**
- Critical crash sfx to feel the impact

**\*Note:** These crashes will be played with a camera shake effect to give the player a feeling of impact for enhancing the player feedback.

## 7. Technical Description

The following game engines can be considered for development:
- Unity Engine
- Godot
- Cocos

The following project management tools can be considered:
- Jira
- Trello

## 8. Economy

**Source:** There will be two ways/sources of earning the Tokens(currency):
1. The abundant tokens lay around throughout the map/level.
2. Bonus: When the player tricks two or more cop cars to crash into each other, it gets bonus tokens(+5 for every car).

**Sinks:** Player can exchange/sink the currency in the following ways:
1. Unlocking new cars(primary way).

### 8.1. In-Game Shop

Players can unlock new cars from the in-game shop using colored tokens earned during gameplay. Assuming the player is able to collect **25-30 tokens** on an average. The actual economy balancing will be done by testing the prototype.

| Car to Unlock | Prices(in tokens) |
|---|---|
| Basic car | Starting car (free) |

| | |
|---|---|
| Sports car | 100 |
| Truck | 250 |
| Luxury car | 450 |
| Super car | 600 |

**Basic Car:**
- Starting car.
- Balanced stats: Average speed, handling, and durability.
- HP: 2
- 0.25 fender bender damage.
- Speed: x km/h

**Sports Car:**
- High Speed: Faster acceleration and top speed compared to other cars.
- Lower durability: Susceptible to more damage from collisions.
- HP: 2
- 0.5 Fender bender damage.
- Speed: 1.10x km/h

**Truck:**
- Durability: Strong and sturdy, can withstand more collisions without slowing down.
- Slower acceleration and top speed compared to other cars.
- HP: 3
- No fender bender damage.
- Speed: 0.8x km/h

**Luxury Car:**
- Handling: Excellent maneuverability and responsiveness.
- Moderate speed and durability.
- HP: 2
- 0.75 fender bender damage.
- Speed: 0.9x km/h

**Supercar:**

- Ultimate Speed: Highest top speed and acceleration in the game.
- Fragile: Very low durability, prone to taking significant damage from collisions.
- HP: 1
- 0.5 fender bender damage.
- Speed: 1.5x km/h

## 8.2. Monetization

There are many ways to set up monetization in the game. Some of them are as below.

**In-App Purchases (IAP):**

In-app purchases allow players to acquire additional tokens and power-ups to enhance their gameplay experience.

| Item | Price |
|------|-------|
| Bronze Token Pack | $1.99 |
| Token-Booster Pack | $3.99 |
| Car Unlock Pack | $9.99 |
| Booster Pack | $14.99/month |

1. **Bronze Token Pack**
- Price: $1.99
- Includes:
    - 500 tokens
    - Ad-free experience

2. **Token Booster Pack:**
- Price: $3.99
- Includes:
    - 1500 tokens
    - 2 Random Booster Packs

3. **Car Unlock Pack:**
- Price: $9.99
- Includes:

- ○ 3000 tokens
- ○ Choice of any unlocked car
- ○ 3 Random Booster Packs

4. **Premium Pass:**
- Price: $14.99/month
- Subscription-based:
- Grants access to exclusive cars, skins, and tracks
- Daily token rewards
- Ad-free experience
- Weekly challenges and rewards

**Rewarded ADS:**
There are multiple ways to reward players through ads.
- Ad before starting a run:
  - ○ Plate can start a run with a booster by playing a rewarded ad.
- When Player loses:
  - ○ Players can watch an ad when they lose in the game to either get revived with/without a boost to continue the same run.
- Increase lucky wheel or daily rewards:
  - ○ Players can get extra rewards for playing a rewarded ad.

## 9. Marketing and Funding

### 9.1. Demographics
The game targets casual gamers of all ages, with a focus on mobile gaming enthusiasts looking for fast-paced, addictive gameplay experiences.

### 9.2. Platforms and Monetization
Thief Chase is available on iOS and Android platforms, with monetization primarily through in-app purchases and optional ads for additional rewards.

### 9.3. Localization
The game supports multiple languages to cater to a global audience, with localization efforts aimed at providing a seamless gaming experience for players worldwide.

**10. Other Ideas**

Aesthetic change ideas:

**Cat pursuit:**

1. A procedurally generated park environment where the player is a cat chased by dogs trying to collect fishes to eat. On collecting a fish, the color of the cat's jacket will change indicating what colored trap/obstacle she can pass through.

**Chaotic Pizza:**

2. A procedurally generated city environment in the player is a pizza delivery guy who was attacked by dogs and all of his pizzas scattered around the city, now he has to collect them while being chased by the dogs. On collecting a pizza, the color of his scooter will change indicating what colored traps/obstacles he can pass through.

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