

## HEMITO REWORK -> MINI MAVIA

The three Mini Mavia siblings discovered a large Ruby2 treasure in an abandoned city and decided to set out to mine it. During their Ruby mining operations, Team Mini Mavia must defend their extracted Ruby from countless greedy thieves.

Here's a breakdown of the major changes and goals:

### 1. MAJOR CHANGES:

- The "Hunting" mode has been removed. Users will now acquire Heroes (Mini Mavias) through a Gacha system using Sapphires.
- **Automated Battles:** Battles are now 100% automatic. Players will only be responsible for organizing their deck and initiating the battle. The AI will control the combat.
- **Airdrop Mode (Ruby2 Mining):** A new "airdrop" mode has been added where players can mine Ruby2 through idle/farming gameplay. This encourages daily logins to obtain Ruby2.
- **Skill System Removal:** The active skill system and the Skill Wheel have been removed.

### Objectives:

- Leverage the image and brand of Mavia (Mavia Mini).
- Target a user base that prefers easy and simple gameplay, but still enjoys battling.
- Offer an attractive airdrop (Ruby2 with potential cash-out).
- Implement AI within Characters (for Hero Skills and Attributes).
- Utilize AI in battle calculations.
- Incorporate AI in Matchmaking (optional).

**Revenue:** IAP (In-App Purchase) revenue will be generated from:

- Metamask Wallet (BASE/Ethereum).

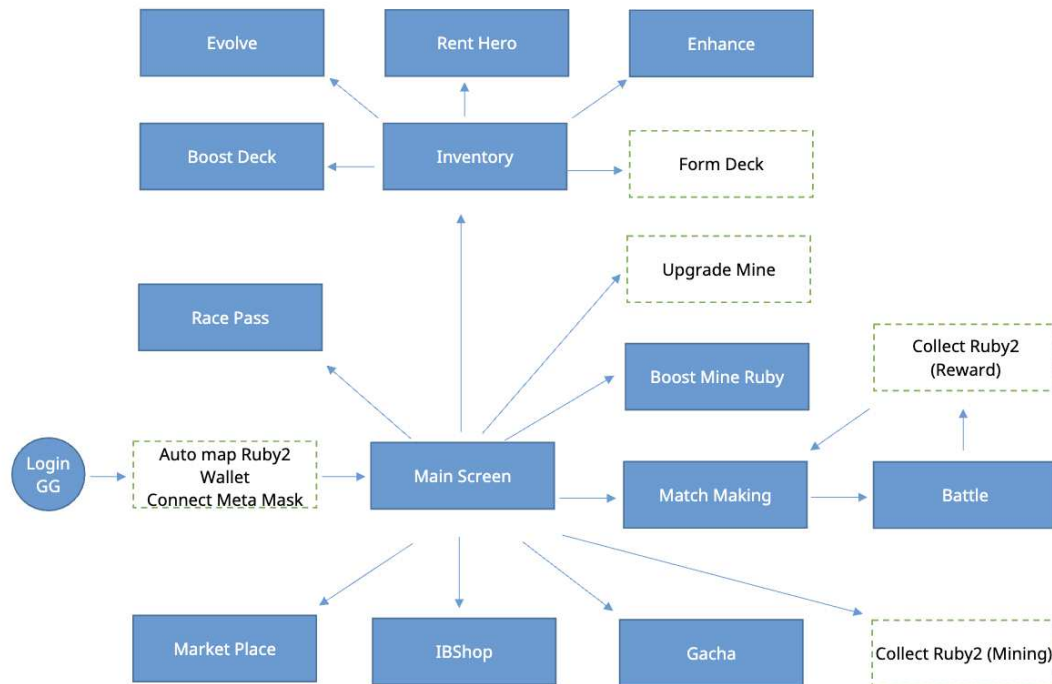
### In-Game Currency:

- **Ruby2:** This is the sole currency obtained from Mining. It can be withdrawn (cashed out) or stolen (by raiding other players). Its only use within the game is to summon Heroes (burn mechanism).
- **Sapphire:** Players can purchase Sapphire packages from the IB Shop using ETH/MAVIA. ETH is currently available on exchanges for gas

fees. Sapphires will be used for major in-game fees such as upgrades, Gacha...

## 2. SCREEN MAP

### 2. SCREEN MAP:



## 3. CHARACTER CLASSES:

There are 19 characters, divided into 3 classes, each with 6 characters and 1 special character number 19: Mercenary character.

- The rock-paper-scissors mechanism is maintained, where a countering class gains a 15% advantage in damage (or relevant stats).
- The 3 character classes are: Tanker, Healer, and Ranger (Damage Dealer).
  - Tanker: Absorbs damage from opponents, high HP and DEF. Does not attack, only reflects damage.
  - Healer: Buffs HP and Damage for allies, low HP, high DEF.
  - Damage Dealer: Low HP, low DEF, high Damage. Divided into 2 types: external damage (reduces armor first) and internal damage (pierces armor, directly reduces HP).
- Character classes do not change appearance; Enhance/Evolve only increases level (Enhance) and star rating (Evolve).

## Base Stat, Base Skill

Class	Name	Skill	DPS	DEF	HP
Tanker	A	- Increase instant to 25% targeting from Enemies, cool down 5s	10	250	250
	B	- Increase instant to 50% targeting from Enemies, cool down 5s	10	400	100
	C	Reflect 15% damage on hit (only applies to HP after DEF is depleted)	10	100	400
	D	Stun enemy 2s when hit, cool down 3s	10	250	250
	E	Miss 30% (30% chance for opponent to miss)	10	200	300
Healer	F	Heal 20% HP to 1 target lowest HP on team, cool down 5s	50	100	100
	G	Heal 10% to 2 target lowest HP on team, cool down 6s	50	100	100
	H	Buff 10% damage single target. Random. One time	50	100	100
	I	Buff 5% damage to 2 targets. Random. One time	50	100	100
	J	Chance 25% Resurrect 1 dead Hero, One time	50	100	100
Ranger	K	Single target, Armor Penetration 20% (ignores DEF, direct HP damage)	100	200	50
	L	Single target, Luck +10% Critical Damage (Critical Damage + 20% to base DPS)	100	50	200
	M	No Reflect, single target random	100	200	50
	N	No Stun, single target	100	50	200
	O	Multi (2) targets	50	50	150
For Rent	P	AI	AI	AI	AI

## TARGETING EXAMPLE:

- When a hero deals damage to one of the three heroes in the opponent's team, in addition to randomly targeting opponent heroes, the damage is also influenced by the priority of the opponent's deck. If the opposing deck includes a Tanker with the "target attraction" skill (Increases instant to 50% targeting from Enemies). For example, the attack rate on the opponent's team will be 50% on the character with this skill and 25% on each of the other two heroes.
- If there are 2 characters with the same skill in 1 deck, the hero with the highest % target will be prioritized, followed by the next highest. If they are equal, it will be random.

### HERO "FOR RENT":

- Can be rented by users and used to fight a maximum of 10 battles. Users rent from the IBShop and pay with Sapphire. What's special about this character?
- After forming a Deck of 2 Heroes, for the 3rd character slot, instead of choosing from the inventory, users can choose to Rent.
- The AI will automatically identify the 2 existing Heroes and suggest a Hero for rent, with recommended Options and Skills to ensure the "strongest possible Deck within the level range" – the rented Hero will be 1 level higher than the 2 Heroes in the Deck (if they are already Legend, then the rented Hero will also be Legend). The rental price will vary depending on the rarity tier.

P	Rarity Tier	Price
	Rare	3 Sapphire
	S.Rare	10 Sapphire
	Epic	50 Sapphire
	Legend not available for rent	

(Estimated 1 USDT buys 10+ sapphire depending on the package)

- This package is listed on the IBShop Store. If a gamer tries to rent a Hero without selecting a Deck, a notification will prompt the User to add 2 characters to the Deck for AI team optimization.
- If this Hero dies in Battle, it is permanently lost, even if the 10 battles are not completed.

### 4. DECK & BATTLE:

- a. Each Deck consists of 3 any characters (heroes), with combos if certain formations are present (will be added gradually later).

- b. Match Making with Offline Users to protect the mining operation.
- c. In a match, there are two ways to proceed, depending on 4B's decision:
  - Determine the winner from the start based on PowerScore, then simply animate the battle. This method is quite... bad.
  - Calculate the winner by sending all information to the AI to calculate the result. The AI will generate a battle script and decide the winner and loser. This method is still bad but has the advantage of incorporating AI, though it incurs token costs.
  - Simulate the actual battle, and the result is not predetermined (includes an element of luck). This is engaging but extremely demanding for developers.
- d. The winner of an online match (by destroying the opponent's deck or when time runs out) will receive rewards, while the loser (offline) will have their mined Ruby stolen.

### **BATTLE SIMULATION:**

- After successful Matchmaking, the 2 teams will be positioned opposite each other on 2 sides.
- The algorithm will simulate the battle by randomly selecting 1 of the 2 teams to attack first (with a ½ second interval).
- Subsequent characters will attack in the order they are positioned in the Deck, with each Hero attacking 1 second after the previous one (DPS).
- Casting a Skill also counts as an attack turn.
- The Hero who runs out of HP first will be "RIP stat" (removed from battle).
- The team that dies first loses.
- If there is no winner after 10-15 seconds (depending on the actual feel of gameplay balance), it will be declared a draw.
- Note that attacks are not in strict turns for each team (e.g., team A attacks heroes 1 > 2 > 3, then team B). This is very boring. Instead, the first character of team A will be randomly selected to attack, and then, with a 0.5-second interval, heroes from each team will attack alternately (e.g., A1 > B1 > A2 > B2 > A3 > B3). Since 0.1 seconds is shorter than the cool-down time, and it takes 3 seconds for a hero to attack again, the pacing will not feel too slow. This part can be fine-tuned during the alpha test.

It is also possible to have heroes from each side attack randomly, but it will be difficult to control the battle outcome when AI heroes are rented. This method will not be used, even though it is more realistic and random.

The battle time can be adjusted later to allow users to "feel" the rhythm and clearly see the battle.

#### Battle Outcome: Raiding

Result	Remaining Heroes	Stars	Stolen Ruby2 from opponent's mine
Win	3 Heroes remaining	3 Stars	75%
	2 Heroes remaining (1 died)	2 Stars	50%
	1 Hero remaining (2 died)	1 Stars	25%
Lose, Draw		0 Stars	Return to Deck or Find another opponent

#### Battle History: Being Raided

	Remaining Heroes	Stars	Result
Win, Draw	Any number of Heroes	3 Stars	Retain Ruby2 being mined
Lose	All Heroes lost		Lose Ruby2 depending on the winner's stars

- A mine that has just been raided will be protected for 4 hours from further raids (removed from the Matching list). When the user is online, the mine is still shown as protected. The protection will expire after 8 hours or when the mine is full upon collection.
- A Hero that dies in Battle will have a 30-minute Cool Down before it can be used in Battle again.

#### Boosting Deck

Users can use Boosting Dust to permanently boost the "base" stats of their deck.

Type	Boosting Dust Required	Max Boost
Plus 10% HP	1000	Unlimited
Plus 5% DPS	2000	Unlimited
Plus 15% DEF	1500	Unlimited

## 5. RUBY MINE:

- The Ruby mine is located in the center of the screen (where the "Dog digs") and only starts generating Ruby after the gamer forms a Deck. Ruby can be harvested every 8 hours or when the mine is full.
- The mine cannot be harvested while it is mining.
- While mining, the mine can be raided, with a maximum of 50% of the mined output being stolen.
- The Ruby mine has a maximum capacity. Users can use Sapphire to increase the mine's capacity.

Mine Level	Max Capacity (Ruby2)	Upgrade Cost (Sapphire)
1	4	50
2	8	100
3	12	300
4	16	100 (trick)
5	24	500

- The mine's Ruby2 output can be boosted over time:

Boost Level	Ruby per Hour (RPH)	Cost (Boosting Dust)
1	1	50
2	1.5	100
3	2	200
4	2.5	400
5	3	500

After boosting, Boosting Dust (NFT-1155) is burned to maintain scarcity.

- The mine cannot be robbed while the player is online.
- If a player does not form a deck and confirm, mining cannot start (a warning or reminder is needed).
- The deck used for mining is also the one defending the Ruby2 mine (requires guidance or notification).

## 6. GACHA

- a. Players enter the summoning screen, featuring a teleportation portal to summon Mini Mavia “siblings” (teleportation visuals feel more natural than egg-hatching or chest-opening). There is one summoning mode, randomly granting 1 of 15 level 1 (normal) heroes:
  - **Mini Mavia Normal Summon: Costs 10 Ruby2.**
- b. Gamers can go to the In-game Marketplace to buy heroes from other players using Ruby2.
- c. After successfully summoning or purchasing a Mini Mavia from the In-game Marketplace, it will appear in your Inventory.
- d. Gacha is 100% random across all 15 hero classes, with only the lowest-tier heroes summonable and stats potentially randomized.

## 7. MATCH MAKING

**Consider testing an AI-based matchmaking system as a “guinea pig” approach.**

## 8. ENHANCE & EVOLVE

- a. Normal Mini Mavia starts at level 1 and evolves three times to level 4. Three level 4 Normal heroes can be evolved into one Rare level 5 (1 star).
- b. Rare heroes evolve three times from level 5 to level 8. Three level 8 Rare heroes evolve into one S.Rare level 9 (2 stars).
- c. S.Rare heroes evolve three times from level 9 to level 12. Three level 12 S.Rare heroes evolve into one Epic level 13 (3 stars).
- d. Similarly, Epic heroes evolve to Legendary level 17 (4 stars – max).

All Mini Mavia, regardless of tier, can be sold on the ingame marketplace for Ruby2.

The game does not support minting NFT ERC-721; all heroes are stored in the in-game database.

### **Enhance & Evolve Costs:**

Level	2	3	4	5 Rare (1*)	6	7	8	9 S.Rare (2*)	10	11	12	13 Epic (3*)	14	15	16	17 Legend (4*)
Cost (Sapphire )	10	10	10	0	20	30	50	0	100	300	500	0	1000	1000	5000	0



Cost (Ruby)	0	0	0	50	0	0	0	100	0	0	0	500	1000	1000	1000	3000
Lucky Rate	100 %	100 %	100 %	100 %	75%	75%	75%	100%	50 %	50%	50%	100 %	25%	25%	25%	100%
Result on Failure					Lose Hero, keep currency				Lose currency, keep Hero				Lose currency, keep Hero			

### Enhance & Evolve Stats:

- **Normal Enhance:** Skills unchanged. Each level increases base stats by 3-5% (non-cumulative).
- **Rare & S.Rare Enhance:** Skills unchanged. Each enhance randomly increases base stats by 4-6% (non-cumulative). Bad luck may result in weaker stats.
- **Epic Enhance:** Each enhance randomly increases base stats by 6-9% (non-cumulative) + a chance for 1 AI Skill (max 2 skills).
- **Legendary Enhance:** Each enhance randomly increases base stats by 10-15% (non-cumulative) + guarantees 1 AI Skill (max 2 skills).
- **Evolve:** Stat increases follow the same range as enhance but apply to the new tier's range.

### AI Skills:

- Before a battle, AI analyzes the matchup and suggests an AI Skill for heroes with this feature, selecting from their available skills to maximize win probability.
- Legendary Mini Mavia have 2 AI Skills, which cannot be duplicates or of the same type.

## 9. HERO RACE PASS

- Gamers earn Boosting Dust by accumulating wins (regardless of star rating) or successfully defending their mine.
- Boosting Dust is manually distributed weekly by developers as pre-minted NFT ERC-1155.
  - Users can use Boosting Dust to permanently boost deck base stats or increase Ruby2 mining output.
- Boosting Dust is minted in limited quantities per season. Players who claim early get priority; others must wait for the next season or buy from the Web DAEP using tokens.
- Pool: 300,000/month (assuming 9 wins and 6 successful defenses daily, with ~5K DAU and ~100K MAU).

<b>Wins or Successful Defenses</b>	<b>Boosting Dust Claimed</b>
10	1
20	2
30	3
50	5
100	10
Every 100 thereafter	10

#### 10. Sapphire Prices:

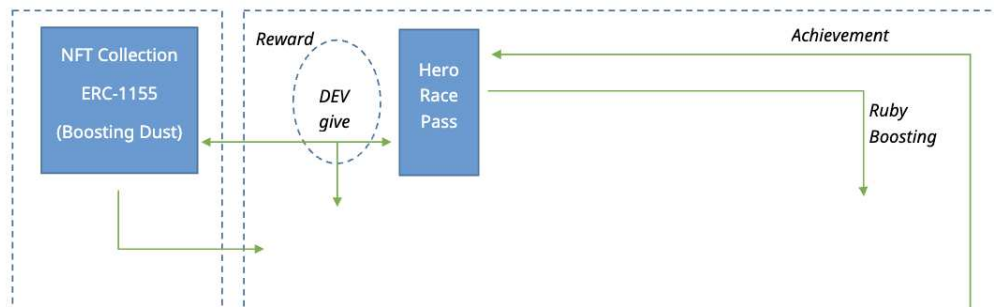
<b>Price (USDT)</b>	<b>Sapphire Amount</b>	<b>Bonus Multiplier</b>
5	50	10
10	150	12.5
20	400	15
50	1250	20

#### 11. AI Hero Rental Prices:

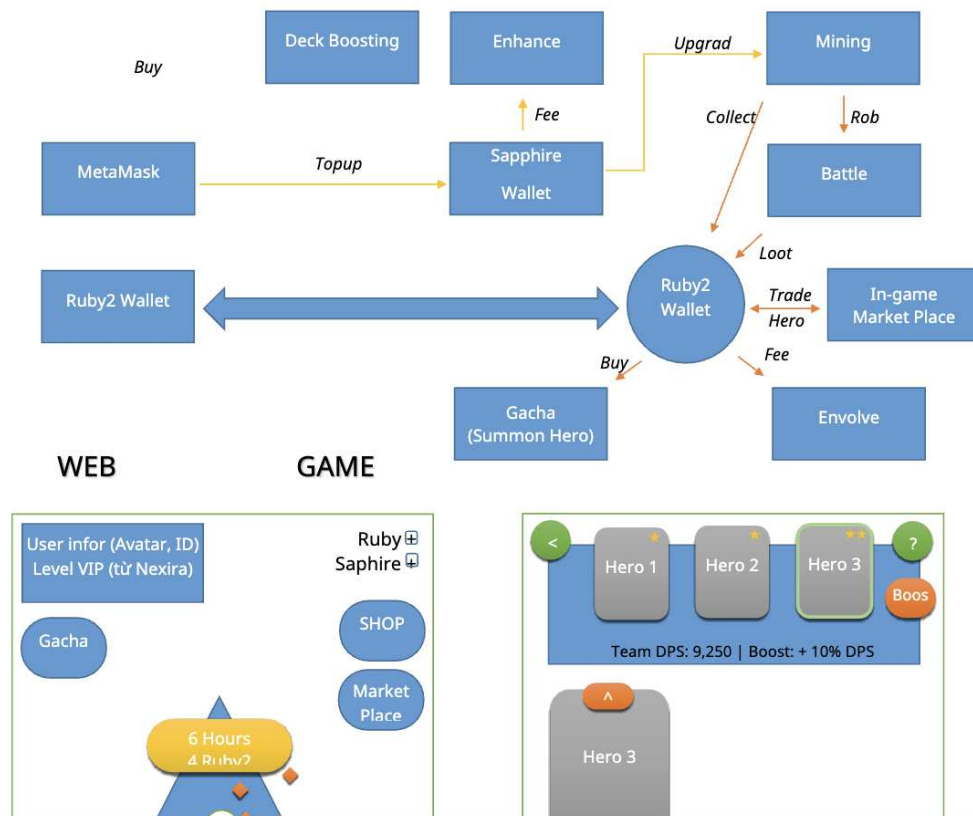
<b>Tier</b>	<b>Cost (Sapphire)</b>	<b>Battles</b>
Normal	10	3
Rare	20	3
S.Rare	30	5
Epic	50	10

## 12. Monetization flow:

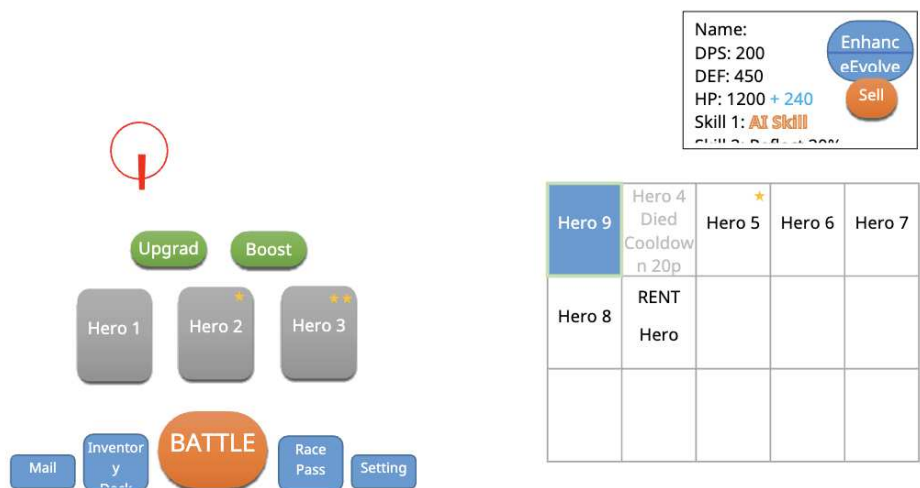
## 12. MONETIZATION FLOW:



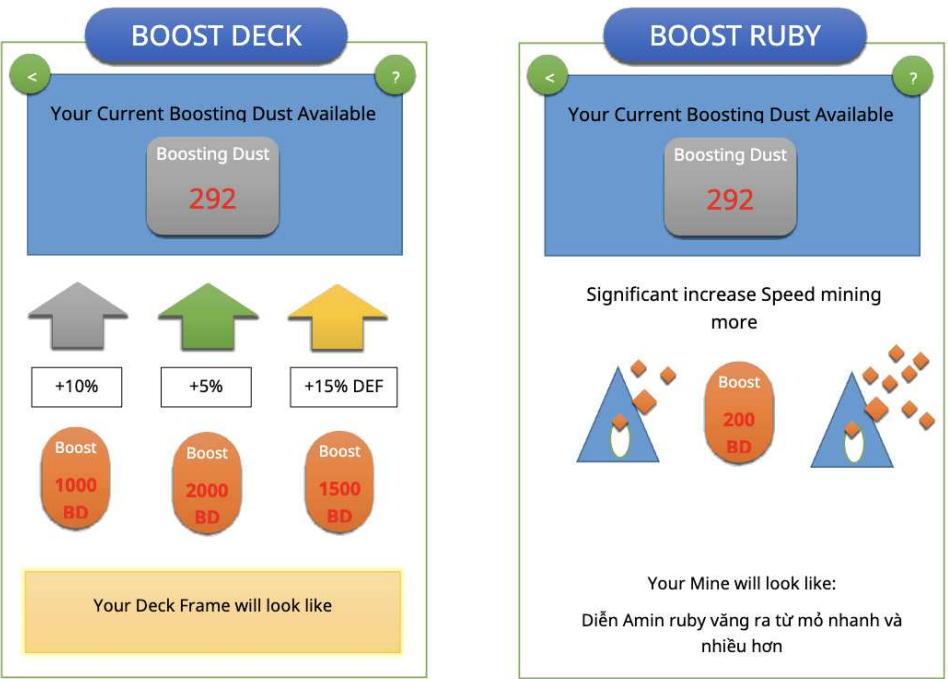
## Sapphire and Ruby2 wallet transactions



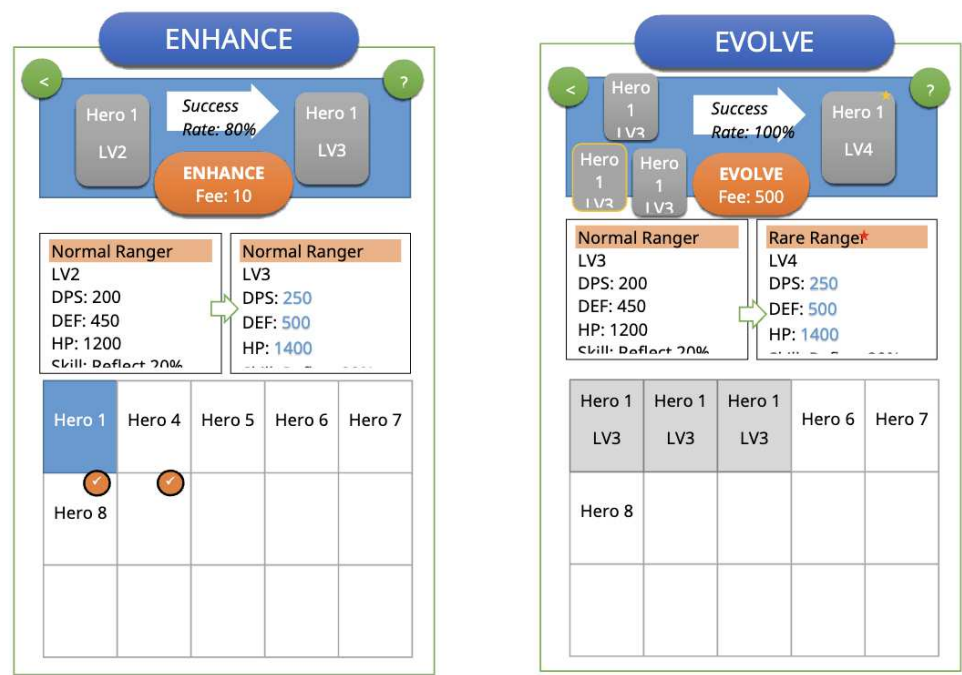
UI for main screen:



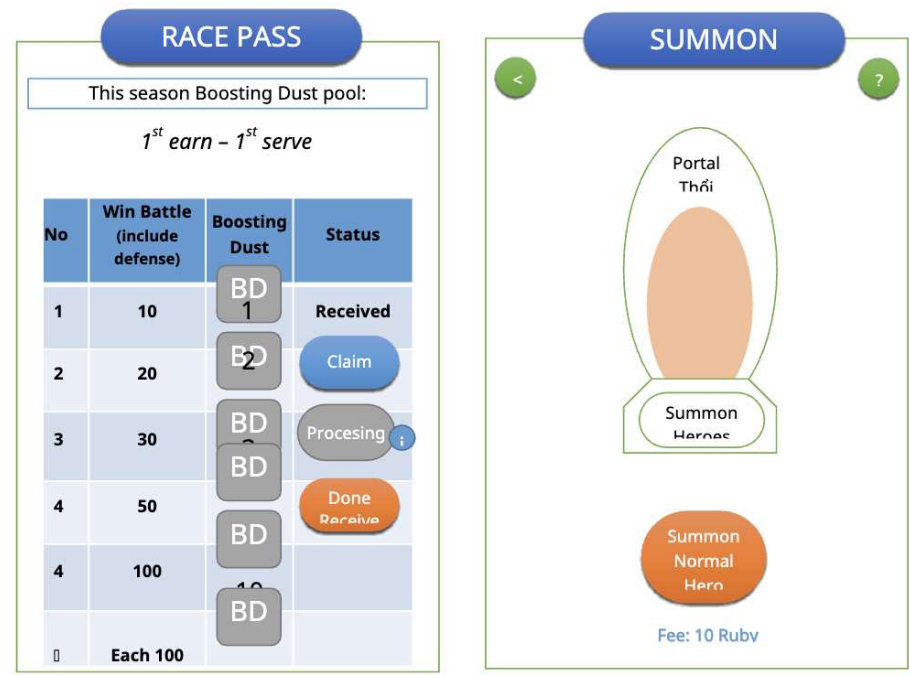
UI for boosting deck and ruby:



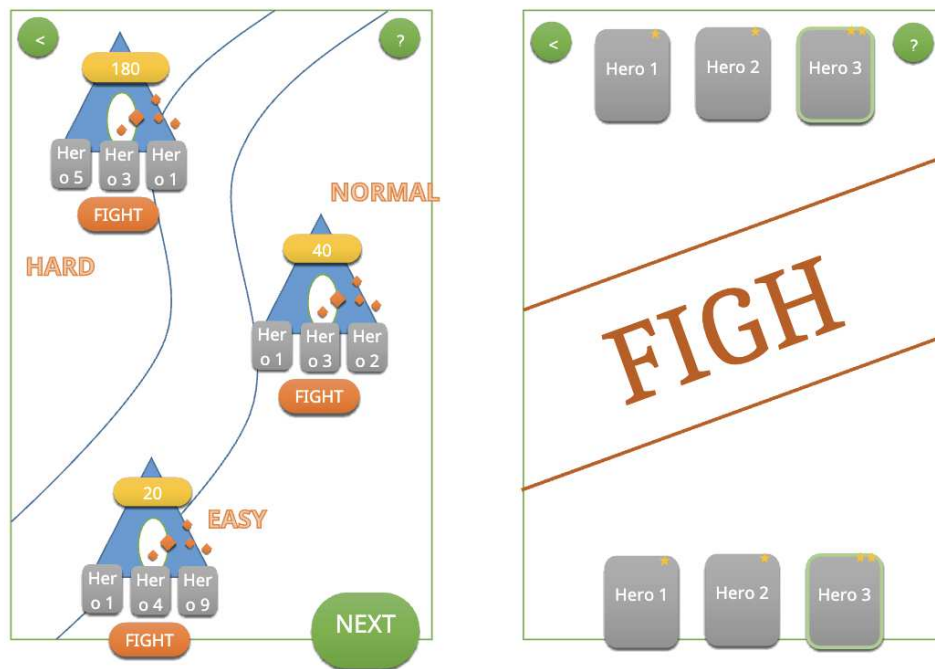
UI for hero enhancements and evolution:



UI for race pass and summoning heroes:



## UI for battle screen and battle sequence:



## UI of IBSHOP for AI rental hero:



## UI of IBSHOP for purchase of Sapphire:

IBSHOP

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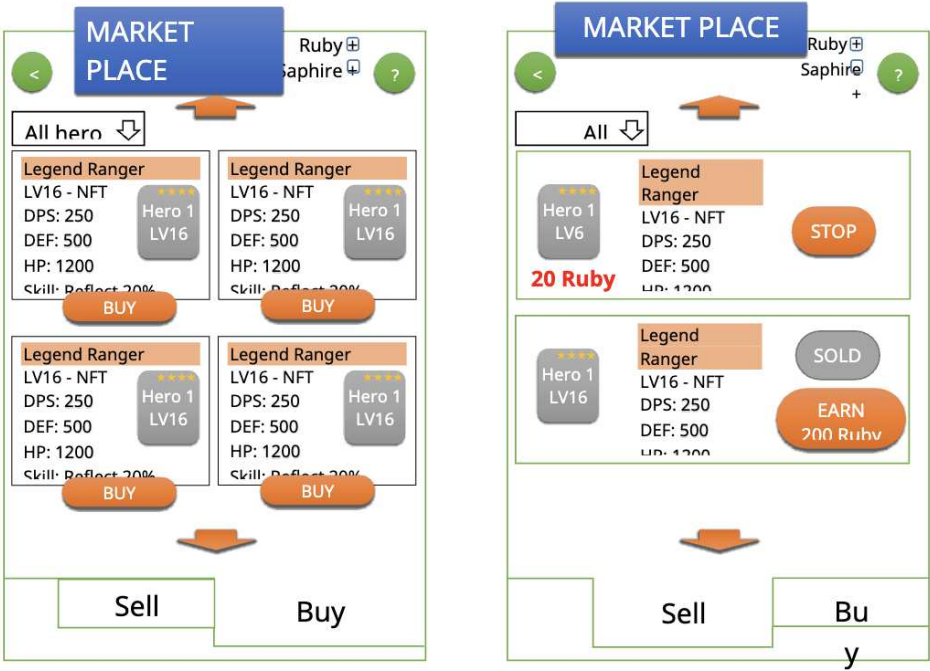
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<b>50</b> Sapphire -	Standard buck of Sapphires \$5
<b>150</b> Sapphire -	Large buck of Sapphires (value x1.5) \$10
<b>400</b> Sapphire -	Big buck of Sapphires (value x2) \$20
<b>1,250</b>	Huge buck of Sapphires (value x2.5) \$50

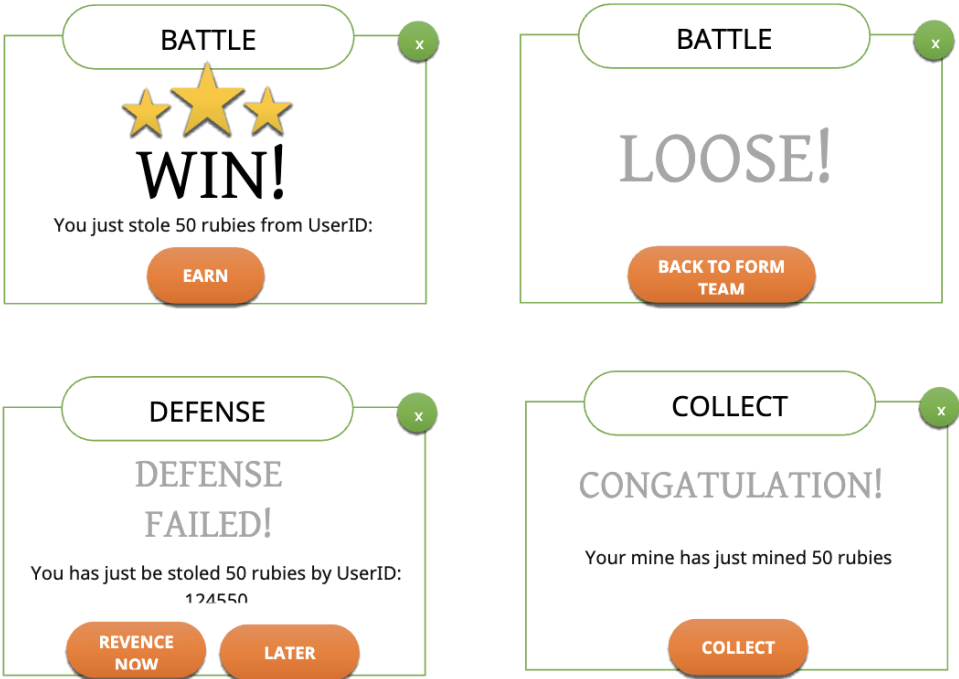
RENT AI

SAPPHIRE

Marketplace to purchase and sell heroes



UI for different battle results





## MATCH MAKING

### Matchmaking Based on “PowerScore”:

Each hero has a Power score based on key stats:

- **w1, w2, w3:** Weights determining the importance of base stats (e.g., DPS is more important, HP is more important, etc.).
- **SkillFactor:** Added if the hero has a sub-skill (Epic, Legend) or a special skill (Reflect, Stun, Revive...), for example, +10% - +20% depending on the skill strength.

### Matchmaking based on a difference threshold:

In the matchmaking queue, two teams with similar Team Power, within a 10% difference, are matched. If no match is found, the range is gradually increased to 15%, and if a match still cannot be found, the team is matched with a Bot.

### PowerScore Formula:

For each hero:

$$\text{Power} = (w1 \times \text{DPS} + w2 \times \text{DEF} + w3 \times \text{HP}) \times (1 + \text{ExtraSkillFactor})$$

Where:

- DPS, DEF, HP are the hero's stats.
- ExtraSkillFactor is a multiplier based on special skills (typically 0.1–0.3).
- w1, w2, w3 are weights reflecting the relative importance of DPS, DEF, and HP, set by the game.
- Heroes with two skills receive the bonus twice.

### Weight Values:

- w1 = 0.5 (DPS accounts for 50%).
- w2 = 0.2 (DEF accounts for 20%).
- w3 = 0.3 (HP accounts for 30%).

### Deck Power:

- Sum of the Power of all 3 heroes.
- Combo and Boost effects are excluded from Power calculations to allow players to feel their impact.

### ExtraSkillFactor for 15 Classes:

Skill factor (from ~0.05 to ~0.30), corresponding to the skill's 'impact' on the battle.

For example, stronger skills (e.g., Stun, Miss, Revive...) have higher factors. The unbalanced skill design encourages more Gacha spending.

Explanation: ExtraSkillFactor = 0.20 means that the hero will get +20% to the final Power Score (after multiplying with  $w_1 \times \text{DPS} + w_2 \times \text{DEF} + w_3 \times \text{HP}$ ).

### Example Skill Factors:

#### 1. Tanker Group:

Class	Skill	Utility (Assessment)	ExtraSkillFactor
A	Increase 25% targeting, CD 5s	Low – moderate taunt	0.05
B	Increase 50% targeting, CD 5s	Better than A, attracts damage	0.08
C	Reflect 15% damage received	Moderate – annoying reflected damage	0.17
D	Stun 2s when hit, CD 3s	Strong – short but impactful control	0.22
E	Miss 30% (30% chance enemy misses)	Quite strong – dodge reduces DPS taken	0.2

#### Explanation:

- A/B only draw enemy attention without direct damage or control, so they have lower factors.
- D (Stun) and E (Miss) offer strong control or evasion, warranting higher factors.
- C (Reflect 15%) is moderately disruptive, rated at ~0.17.

#### 2. Healer Group:

Class	Skill	Utility (Assessment)	ExtraSkillFactor
F	Heal 20% HP to 1 lowest-HP ally, CD 5s	Average-good (single-target heal)	0.15
G	Heal 10% HP to 2	Similar to F (20% total split),	0.15

	lowest-HP allies, CD 6s	longer CD	
H	Buff 10% damage to 1 random target, one-time	Mild damage boost, single target	0.10
I	Buff 5% damage to 2 random targets, one-time	10% total split across 2 targets	0.12
J	25% chance to revive 1 hero, one-time	Very strong (game-changer)	0.25

**Explanation:**

- F/G both heal ~20% HP (F for one target with faster CD, G for two with slower CD), so they're rated ~0.15.
- H/I provide one-time damage buffs, modest at 0.10–0.12.
- J (25% revive) is a potential game-changer, earning the highest factor at 0.25.

**3. Ranger Group:**

Class	Skill	Utility (Assessment)	ExtraSkillFactor
K	20% armor pierce (bypasses DEF, direct to HP)	Quite strong (anti-tank)	0.18
L	Plus 10% Critical Chance, Critical Damage +20% to base DPS	Strong (potential burst damage)	0.20
M	No Reflect, single random target (near skill-less)	Weak/minimal	0.05
N	No Stun, single target (near skill-less)	Weak/minimal	0.05
O	Multi-target (2 targets), DPS=50	Average-good (mini AoE)	0.15

**Explanation:**

- K (20% armor pierce) and L (critical damage boost 20%) are strong damage skills, rated ~0.18–0.20.

- M/N have minimal effects, rated at the minimum 0.05.
- O (2-target attack) provides moderate AoE, rated at ~0.15.

### **Power Calculation Example:**

For Class D (Stun), base stats: DPS=10, DEF=250, HP=250, ExtraSkillFactor=0.25.

- Weights:  $w_1=0.5$ ,  $w_2=0.2$ ,  $w_3=0.3$ .
- Base sum =  $(0.5 \times 10) + (0.2 \times 250) + (0.3 \times 250) = 5 + 50 + 75 = 130$ .
- Skill multiplier =  $1 + 0.25 = 1.25$ .
- Power =  $130 \times 1.25 = 162.5$ .

At level 16 (~100% stat increase), stats might double: DPS=20, DEF=500, HP=500.

- Base sum =  $(0.5 \times 20) + (0.2 \times 500) + (0.3 \times 500) = 10 + 100 + 150 = 260$ .
- Skill multiplier = 1.25.
- Power =  $260 \times 1.25 = 325$  (nearly double the level 1 Power, consistent with stat scaling).

**AI Matchmaking Trial:** Consider testing AI-based matchmaking with support from the AI team.