GAME BALANCING FORMULAS – CUSTOM MINI ROOMS BATTLE ROYALE

1. RARITY SCALING FORMULA

Higher rarity traits produce stronger buffs by a controlled scaling curve.

$$BuffValue = BaseValue \times (1 + RarityMultiplier)$$

RarityMultipliers:

Common = 0.00

Uncommon = 0.15

Rare = 0.30

Epic = 0.55

Legendary = 0.90

2. DEFENSE CALCULATION

$$TotalDefense = Sum(HoodieDefense + RoomDefense + PassiveBuffs)$$

$$DamageTaken = IncomingDamage \times (1 - TotalDefense\%)$$

3. MOVEMENT SPEED FORMULA

$$Speed = BaseSpeed \times (1 + Sum(AllSpeedBuffs))$$

SpeedSoftCap = 1.40 (40% max)

4. VISIBILITY CALCULATION

$$VisibilityLevel = BaseVisibility - StealthBuffs + EnemyDetection$$

StealthSoftCap = -20%

5. CRITICAL HIT FORMULA

$$CritChance = BaseCrit + CritTraits$$

CritDamage = BaseCritDamage × (1 + CritMultiplier)

6. TRAP DAMAGE FORMULA

TrapDamage = BaseTrapDamage × (1 + TrapBuff)

7. ROOM CONTROL BONUS

RoomAdvantage = Sum(RoomDefense + MovementBonus + VisibilityPenaltyAppliedToEnemies)

8. RARITY STACKING PROBABILITY

MintChance = Π (TraitChance × RarityWeight)

Lower total probability = higher NFT value.

9. ADVANTAGE BALANCING CURVE

All buffs above 10% begin scaling at 50% effectiveness:

EffectiveBuff = 10% + (Buff − 10%) × 0.50

This prevents overpowering.