PEPEHOOD PROTOCOL · TECHNICAL SPECIFICATION

Protocol Whitepaper

ERC-721 characters, ERC-6551 desks, $PEPEH, a commit–reveal activation discount, time-weighted points, and weekly Pay-day — formal rules with worked examples.

VERSION
1.0

NETWORK
Robinhood Chain

DOCUMENT TYPE
Public technical reference

COMPANION
Readable walkthrough on pepe2hood.xyz/whitepaper

Pre-mint specification. Absolute activation amounts (in $PEPEH), mint price, and LP seed sizes publish on the official website at NFT mint date. Fee rates and structural rules in this document are part of the public design.

Contents

1. Abstract

TOKEN IDENTITY

$PEPEH is the only protocol ERC-20. "Fuel" in PepeHood materials describes $PEPEH's role (activation, upgrades, Pay-day funding) - not a separate coin.

> PepeHood turns each NFT into an activation-gated on-chain desk that can earn from real protocol flows — not floor speculation alone.

PepeHood is an NFT collection in which each character can become an on-chain economic agent. After mint, each character receives a fixed activation discount by mint route, and $PEPEH (the only protocol ERC-20) is deployed with liquidity created on PonsFamily. The NFT collection mints on OpenSea. Holders purchase their discounted activation $PEPEH on the open market and activate the NFT. Activation creates an ERC-6551 Token Bound Account (TBA), unlocks a points-based reward share that grows with holding time, and admits the NFT into weekly Pay-day distributions funded by Reward from Pons (creator share of PonsFamily trading fees) and secondary royalties.

After listing, trading on PonsFamily generates fees; the protocol's creator share — Reward from Pons — is routed to the distributor. Secondary royalties are the second inflow. Holder rewards are allocated strictly by points. This document specifies the mechanism in technical form, then illustrates it with worked examples.

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2. Design goals

1. **Agent, not static PFP.** The NFT is identity; the TBA is the desk that holds assets and receives rewards after activation.

2. **Clear activation gate.** No Pay-day points and no Pay-day until activation. Pre-activation benefit is the fixed mint-route discount plus quest score earned before mint, which comes off the $PEPEH due at activation.
3. **Market-priced $PEPEH after listing.** There is no fixed-price platform $PEPEH shop before listing. After the NFT mint is finished, $PEPEH is deployed and liquidity is created on PonsFamily. Activation $PEPEH is acquired on that market.
4. **No token distribution.** The protocol sends no $PEPEH to holders. Benefits are expressed as discounts against a cost, so no deployer-funded wallet cluster is created and reported deployer supply is unaffected.
5. **Fixed discounts.** Whitelist mints receive 50% off activation baseline; public mints receive 10% off. Constants are immutable in Activation; whitelist flags are imported on-chain before freeze.
6. **Transparent reward split.** Weekly pot is split by fixed holder/team shares; the holder slice is proportional to points.
7. **Time-weighted, not rarity-weighted alone.** Holding-bonus points are added last — a plan multiplies rarity, not time — so holding still raises a Common’s share proportionally more than a Mythic’s.
8. **Two independent inflows.** Reward from Pons and secondary royalties fund Pay-day separately, so the distributor does not depend on a single market.

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3. Roadmap order

The protocol launches in a fixed sequence. The collection mints on OpenSea; $PEPEH lists on PonsFamily — public venues, so the mint and the listing can be checked.

STEP	EVENT
1	NFT mint on OpenSea (ERC-721)
2	Deploy $PEPEH and create liquidity on PonsFamily (after mint)
3	Import whitelist mint flags on Activation → freeze parameters
4	Holders buy discounted $PEPEH on that market → activate → TBA bonded
5	Weekly Pay-day from Reward from Pons and royalty pot by points

Optional upgrade plans may be purchased after activation to multiply rarity. Holding is added last.

4. Notation & formulas

4.1 Fixed fee constants

SYMBOL	DEFINITION	VALUE
R_{pons}	Reward from Pons that period — creator share of PonsFamily trading fees, in $PEPEH	observed (not a published rate)
f	Activation fee as a fraction of activation amount	$1\% = 0.01$
s_H	Pay-day share to activated holders	$95\% = 0.95$
s_T	Pay-day share to team	$5\% = 0.05$
ρ	Secondary royalty rate (EIP-2981), charged in the sale currency	$5\% = 0.05$
p	$PEPEH price in quote terms at the time the royalty is swapped	market
ℓ_1	Holding-bonus points per week during the fast phase	1.5
T_1	Length of the fast phase, in weeks (ends at $+30$)	20
ℓ_2	Holding-bonus points per week after the fast phase	0.25
Λ	Holding-bonus ceiling (reached at week 80)	45
κ	Share of accrued holding time carried to a buyer on transfer	$50\% = 0.5$
γ	Crew-bonus coefficient (ceiling on the crew multiplier)	$15\% = 0.15$
q	Quest points per completed quest day (after mint)	1
σ_7	Quest bonus per 7-day streak (after mint)	5
σ_{28}	Quest bonus per 28-day streak (after mint)	15
C	Streak length beyond which a run stops adding points	28
$Q^{\max}$	Quest-point ceiling on a full streak	63
b	Quest-score base award per completed day (before mint)	100
σ_s	Quest-score streak step per extra consecutive day (before mint)	10
B	Quest-score streak-bonus cap, so a day pays at most $b + B$	50

SYMBOL	DEFINITION	VALUE
χ	Maximum share of discounted activation that quest score may cover	$25\% = 0.25$

4.1b Discount by mint route

Let δ_g be the activation discount for mint route g (whitelist or public). Values are fixed constants in the Activation contract:

ROUTE	Δ_G
Whitelist mint	0.50
Public mint	0.10

Whitelist mint flags are imported on-chain per token ID from CSV before `freeze()`. The discount follows how the token was minted, not the current wallet, and transfers with the NFT.

Reward from Pons is the creator share of PonsFamily trading fees for that period, already denominated in $PEPEH when it reaches the distributor. On the current factory the creator share is 70% of those fees (PonsFamily keeps 30%), snapshotted at launch. R_{pons} is whatever that share actually collected.

4.2 Free variables (set at / before mint)

SYMBOL	MEANING
S	Total fuel supply
N	Sellable NFT supply
P_{nft}	NFT mint price (quote asset)
A_r	Activation fuel required for rarity r
n_r	Number of sellable NFTs of rarity r
λ	Share of $(S - F_{\text{tot}})$ placed in initial LP
a_r	Base Pay-day points for rarity r
M_i	Upgrade multiplier for NFT i (default 1)
ϕ	Fraction of minters that are whitelist (from snapshot)
r_U	$PEPEH per unit of pre-mint quest score, published with the mint price

4.3 Derived quantities

$$A_{\text{tot}} = \sum_r n_r A_r, \qquad F_{\text{tot}} = f \cdot A_{\text{tot}}$$
$$L = \lambda(S - F_{\text{tot}}), \qquad T = (1-\lambda)(S - F_{\text{tot}})$$
$$Y_0 = N \cdot P_{\text{nft}}, \qquad p_0 = \frac{Y_0}{L}, \qquad \text{FDV}_0 = p_0 \cdot S$$

No token inventory is distributed. Expected forgone activation demand from the discount, in token units:

$$D = \big(\phi\,\mathbb{E}[\delta_{\text{WL}}] + (1-\phi)\,\mathbb{E}[\delta_{\text{Pub}}]\big)\,A_{\text{tot}}$$

D is a reduction in required buy pressure, not an outflow. It never leaves the treasury and never creates a funded wallet.

Market purchase required to activate token i of rarity r:

$$B_i = \big(1-\delta_i\big)A_r - \min\big(r_U U,\ \chi(1-\delta_i)A_r\big) + fA_r$$

U is pre-mint quest score, defined below. The discount δ_i is applied first; quest score then comes off what remains, up to χ of that remainder, so activation cannot reach zero. The fee fA_r is charged on the full baseline. r_U publishes with the mint price. If the holder earned no quest score, this reduces to the previous form $\big(1-\delta_i+f\big)A_r$.

Holding bonus accrued by token i after t_i weeks since activation. Accrual is piecewise: fast for the first T_1 weeks, then a slower creep to the ceiling Λ:

$$\Lambda_i = \min\Big(\ell_1 \min(t_i,\,T_1) + \ell_2 \max(t_i - T_1,\,0),\ \Lambda\Big)$$

The front-loaded phase makes accrual visible within the first months, when tenures across the active set still differ and the bonus therefore separates holders. The slow phase keeps the term rising to week 80 rather than stopping dead, while bounding the ceiling so rarity is not erased. An unbounded accrual would drive the tier ratio toward $1\times$.

Crew multiplier for token i, where w_i is the number of **activated** characters held by the wallet that owns it:

$$G_i = 1 + \gamma\left(1 - \frac{1}{w_i}\right)$$

The form is self-capping and deliberately concave: half of γ is delivered at $w_i = 2$, around 80% by $w_i = 5$, and it asymptotes to $1 + \gamma$. A multiplier linear in w_i is not a viable alternative — at $+5\%$ per character, simulation over a plausible wallet-size distribution gives the largest wallet a 200% gain while single-character holders lose 46% of their share. At $\gamma = 0.15$ the same simulation moves top-10 concentration only from 20.5% to 21.5%.

w_i is evaluated as the **minimum** count the wallet held across the reward period, so acquiring characters immediately before a snapshot confers nothing. The mechanism carries no sybil incentive in either direction: splitting a holding across wallets lowers w_i, and raising it requires activating another character, which costs activation $PEPEH purchased on the market.

On transfer, the accrued clock is reduced rather than reset: $t_i \leftarrow \kappa\, t_i$. This keeps a seasoned NFT worth buying while making the clock costly to farm through wash transfers.

Royalty inflow over a period with secondary sale notional V_{sec}, denominated in the currency the NFTs sold in, expressed as $PEPEH into the distributor:

$$R_{\text{roy}} = \frac{\rho\, V_{\text{sec}}}{p}$$

The royalty is collected in the sale currency, not in $PEPEH, so the amount of $PEPEH it yields depends on the swap rate p at the time. The two inflows become commensurable only after that swap.

Quest points earned by token i *after mint*, where s_i is the length in days of the holder's **current unbroken streak** of completed quest days. This is not the pre-mint quest-score ladder. Streak bonuses are granted per milestone reached, so a clean streak collects four weekly bonuses and one monthly. A 10-day streak is $Q_i = 15$:

$$Q_i = q\,\hat{s}_i + \sigma_7 \left\lfloor \frac{\hat{s}_i}{7} \right\rfloor + \sigma_{28} \left\lfloor \frac{\hat{s}_i}{28} \right\rfloor, \qquad \hat{s}_i = \min(s_i,\, C), \qquad \max Q_i = Q^{\max} = 63$$

s_i counts consecutive UTC days on which all three quests were completed. While that streak is unbroken, Q_i is recomputed from s_i at each Pay-day and is not zeroed. A single missed day is what sets $s_i \leftarrow 0$, and therefore $Q_i \leftarrow 0$: the streak is not decremented, paused or partially retained, it ceases to exist, and the next completed day resumes at $s_i = 1$.

Pre-mint the same three quests earn a separate quantity, quest score U. Each completed day d of a live streak awards

$$u(s) = b + \min\big((s-1)\sigma_s,\, B\big), \qquad U = \sum u$$

U accumulates and is never reduced. A missed day before mint sets the streak to zero so the next award is $u(1) = b$; it does not take score already earned. At activation U converts at r_U

and comes off the discounted $PEPEH due, capped at χ. After mint this ladder is retired: the same tasks switch to Q_i and stop adding to U.

Truncating at C is what bounds the term. Unbounded lifetime accrual was the first model tested and was rejected: at $q = 1$ it reaches 62% of $\sum_j P_j$ within a year, which makes a_r decorative and permanently forecloses later entrants. The reset makes the bound considerably tighter in practice — simulated over a population where 40% participate at all, mean Q_i is 4.6 and quests account for 5.8% of $\sum_j P_j$, against 9.0% for the same parameters under a trailing-window rule.

Points and Pay-day (treasury balance R that period):

$$P_i = a_r \cdot M_i \cdot G_i + Q_i + \Lambda_i$$

$$R = \underbrace{R_{\text{pons}}}_{\text{Reward from Pons}} + \underbrace{\frac{\rho V_{\text{sec}}}{p}}_{\text{royalties, after swap}}$$

$$\text{reward}_i = s_H R \cdot \frac{P_i}{\sum_j P_j}, \qquad \text{team} = s_T R$$

Only **activated** NFTs enter $\sum_j P_j$. Order is deliberate: rarity first, then plan, then crew, then quest, with holding last. M_i and G_i multiply a_r only. Q_i and Λ_i are added *after* those multipliers, so a plan does not enlarge time or effort: the same $Q^{\max}$ is about 10% of a maxed Mythic's total and the majority of an unupgraded Common's. Note that Λ_i, G_i and Q_i appear only in the numerator and denominator of the share — none ever enters R. All three redistribute the pot; R_{pons} and the royalty term $\rho V_{\text{sec}}/p$ are what grow it.

Λ_i and G_i pull in opposite directions by design. The holding bonus is additive, so it favours low-a_r tokens and therefore small holders; the crew multiplier favours wallets holding several characters. γ is set low enough that the second effect does not overwhelm the first — at $\gamma = 0.15$ a single-character wallet gives up roughly 8.5% of its share, against the 46% a linear rule would take.

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5. Protocol components

5.1 ERC-721 collection

Each PepeHood character is a standard ERC-721 implementing EIP-2981 with royalty rate ρ. Minting grants ownership of the art and a fixed post-mint activation discount by mint route. Minting alone does **not** create a TBA and does **not** grant Pay-day eligibility.

5.2 ERC-6551 Token Bound Account (desk)

The TBA is **created and bonded at activation**, not at mint:

- Permanently bound to the token ID.
- Controlled by whoever holds the NFT; transfers with the NFT.

- Can hold native assets, $PEPEH, other ERC-20s, and interact with allow-listed protocols.
- Pay-day holder rewards settle into the TBA after activation.

5.3 $PEPEH and Reward from Pons

$PEPEH is the unit of activation, upgrades, and (via Reward from Pons) the primary Pay-day funding stream. When this document says “fuel,” it means $PEPEH’s role — not a second token. After the NFT mint is finished, $PEPEH lists on PonsFamily. Trading on that launch generates fees; the protocol's creator share R_{pons} (70% of PonsFamily's factory fee on the current factory) is routed to the Pay-day distributor. It is not a private cut.

> **IMPLEMENTATION NOTE**
>
> The 70/30 split is PonsFamily's factory rule, snapshotted at our launch and never changed afterwards. The creator payout wallet is set to the Pay-day distributor at listing. Royalty swaps remain a second, independent inflow.

5.4 Initial liquidity

After the NFT mint is finished, $PEPEH is deployed and liquidity is created on **PonsFamily** (Robinhood Chain). Supply is fixed at $1{,}000{,}000{,}000$. The token trades against WETH in a Uniswap V3 pool. Liquidity is locked automatically by PonsFamily in the same transaction; there is no team-held LP and no later migration. The creator share of PonsFamily trading fees (currently 70% on their factory, with 30% remaining with PonsFamily) is snapshotted at launch and routed to the Pay-day treasury — that is Reward from Pons. Exact WETH paired publishes with the launch transaction. Team inventory T covers protocol operations and any disclosed vested remainder. Because no distribution occurs, T is not drawn down to fund holder benefits.

> **LP DISCLOSURE COMMITMENT**
>
> At listing we publish the PonsFamily launch link, the pool address, the WETH paired, and the lock as it exists on that platform, each with an explorer URL. PonsFamily's factory and locker are already live (see Verify). This document does not claim our token's lock exists today; no lock is described as done until those links are live on Verify.

5.5 Activation discount

Each token i carries mint route $g_i \in \{\text{WL}, \text{Pub}\}$. At activation the discount is $\delta_{g_i} - 0.50$ for whitelist mints, 0.10 for public mints. No $PEPEH is transferred as a benefit; the holder buys the discounted amount on the PonsFamily market after listing.

Procedure before activation opens:

1. Whitelist mint flags are imported on-chain per token ID from the published CSV.
2. Activation amounts, quest rate, and discount constants are set, then the contract is frozen.
3. At activate time, the contract reads the flag for token i and applies δ_{g_i} to baseline A_r.

Discount constants are immutable after deploy. Staging Activation and Pay-day distributor are live on Robinhood mainnet (4663) with placeholder NFT/$PEPEH; OpenSea + PonsFamily addresses require new deploys at mint.

5.6 Activation

To activate, the holder of token i must deliver:

$$B_i = \big(1 - \delta_i\big) A_r - \min\big(r_U U,\ \chi(1 - \delta_i) A_r\big) + f A_r$$

$PEPEH — the discounted activation amount, minus converted quest score up to χ of that remainder, plus the fee on the full baseline — acquired on the PonsFamily market after listing. On success the protocol bonds the TBA, admits the NFT to the points set, and starts its holding clock at $t_i = 0$.

5.7 Holding bonus, crew, quests, and upgrade plans

After activation, an optional plan multiplies rarity, crew scales that stack, quests add a flat amount, and holding accrues last:

$$P_i = a_r \times M_i \times G_i + Q_i + \Lambda_i, \qquad \Lambda_i = \min\Big(\ell_1 \min(t_i, T_1) + \ell_2 \max(t_i - T_1, 0),\ \Lambda\Big), \qquad C$$

The holding term is additive rather than multiplicative by design. A multiplicative bonus would scale with a_r and widen the rarity gap over time; an additive one narrows it. At the end of the fast phase a Common moves from 10 to 40 points while a Mythic moves from 100 to 130, closing the tier ratio from $10.0\times$ to $3.25\times$. At the $+45$ ceiling the same desks sit at 55 and 145 — a $5.5\times$ improvement against $1.45\times$, and a tier ratio of $2.64\times$.

The crew multiplier applies to every character's rarity × plan stack, so a wallet earns more than the sum of its characters taken separately. It is concave rather than linear: $G = 1.075$ at two characters, 1.120 at five, 1.135 at ten, and 1.144 at twenty-five against a ceiling of 1.15. The marginal reward is therefore concentrated on the second and third character — the holdings most likely to be discretionary — and is close to exhausted by the tenth.

CREW CANNOT BE FARMED

Splitting a holding across wallets reduces w_i rather than increasing it, so the usual sybil incentive runs backwards. Increasing w_i requires activating another character, which costs activation $PEPEH bought on the market — the bonus is paid for in buy pressure. Because w_i is the minimum count across the reward period, borrowing or renting characters around a snapshot yields nothing, and consolidating by purchase also surrenders half of each acquired character's holding clock through κ.

Quest points sit outside the multipliers. Every other term rewards what a holder bought — rarity at mint, a plan, a larger wallet — and all three compound with each other. Q_i rewards

showing up, so it is added flat and is worth an identical amount to every character. Placement is the entire design: inside the brackets it would compound with M_i and hand the largest quest reward to whoever already spent the most, which inverts the intent.

Q_i is also the only term in P_i that can go to zero from one day to the next, and only if a quest day is missed. While the streak holds, Q_i stays. a_r is fixed at mint, Λ_i only ever rises while held, and G_i moves only when the wallet's activated count changes. The quest term is deliberately the volatile one: it is the component that has to be re-earned after a miss.

The rarity ladder survives because the term is additive. At equal effort every tier gains the same $Q^{\max}$ and the ordering is unchanged; what shifts is the comparison across effort levels. Holding $t_i = 20$ weeks with no plan and one character, a Common on a full run reaches 103 points against an idle Legendary's 86 and an idle Mythic's 130 — deliberately calibrated so effort overtakes several tiers of idleness without overtaking the top. A collection whose rarity stops mattering also stops trading, and ρV_{sec} is one of only two inflows to R.

The reset makes $Q^{\max}$ materially harder to hold than the parameters alone suggest, and the distribution reflects that. A holder completing 95% of days has only a 23.8% chance of standing on a full 28-day run at a given moment; at 99% it is 75.5%. Simulated across the population, 77% of participants hold a zero streak at any instant and 4.7% sit at the cap. Casual participation is worth close to nothing under this rule — median Q_i among those who quest at all falls from 19% of their total under a trailing window to 2% — so the term concentrates almost entirely on committed holders, which is the intended reading and is stated here rather than discovered later.

A MISSED DAY ZEROES Q_I, NOT PRE-MINT QUEST SCORE

Q_i is a function of the current unbroken streak s_i. Keep completing the three quests and Q_i stays through Pay-day. Missing a UTC day sets $s_i \leftarrow 0$ and $Q_i \leftarrow 0$; nothing is carried or partially retained, and the next completed day restarts at $s_i = 1$. Pre-mint quest score U is excluded from this rule: it accumulates on award and a lapse reduces only the streak bonus on later days, never the score already earned.

TRUNCATION, NOT EXPIRY, IS WHAT BOUNDS Q_I

A run stops adding points past $C = 28$ days, so tenure cannot compound: a holder 200 days into a run scores exactly what a holder 28 days in scores. The alternative — a lifetime counter — was simulated first and reaches 62% of $\sum_j P_j$ inside a year at $q = 1$, at which point a free unupgraded Common outscores a fully-maxed Mythic and no participant joining later can ever close the gap. Truncation plus reset is what keeps Q_i an engagement term rather than a seniority ranking.

THE HOLDING BONUS IS NOT A PAYOUT

Λ_i is a points term. It changes how a given R is divided between holders; it does not add anything to R. Revenue into the distributor comes from Reward from Pons and the secondary royalty (§5.8) only. The two mechanisms are independent and should not be read as one “loyalty reward.” Q_i is a points term in exactly the same sense.

Plan schedules (names and costs) are published at mint. Points remain the sole determinant of relative holder Pay-day share.

5.8 Royalty router

Secondary sales on marketplaces honouring EIP-2981 pay ρ to a router contract, in the currency the sale settled in. The router swaps those proceeds to $PEPEH and forwards them to the Pay-day distributor. This gives the protocol a revenue stream independent of token transfer volume and converts collection activity into buy pressure on $PEPEH.

Royalty enforcement is a marketplace policy, not a protocol guarantee. Income from this source is contingent on where the collection trades. Because the proceeds arrive in the sale currency, the $PEPEH they ultimately deliver also depends on the swap rate p on the day.

5.9 Pay-day

On each weekly Pay-day, distributor balance R — Reward from Pons plus royalty inflows — is split s_H / s_T. The distributor contract is the published sink (OpenSea royalty receiver and Pons creator-share destination). Staging Pay-day distributor is live on Robinhood mainnet (4663); production NFT/$PEPEH wiring lands at mint. There is no arbitrary withdrawal.

Settlement: a keeper publishes a merkle root for the holder slice ($s_H R$) and pays the team slice ($s_T R$) immediately. Each activated token claims with a proof; $s_H R \cdot P_i / \sum P$ is transferred to that token's TBA. Duplicate claims for the same epoch and tokenId revert. Points P_i are computed off-chain from published rules (Activation state, rarity, holding, crew, quest, plan) and the epoch JSON is published for audit.

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6. Worked examples (illustrative)

ILLUSTRATIVE ONLY — NOT A FORECAST

Every number in this section is a teaching symbol or a clearly labeled toy value chosen to make the arithmetic legible. None of it is a projection, a target, or an expected outcome. Absolute A_r, P_{nft}, and L publish at mint; real Pay-day figures publish only after distributions actually occur.

6.1 Discount and market buy (symbolic)

Let Common activation $A_C = X$ and activation fee rate $f = 1\%$.

MINT ROUTE	Δ	BUY AFTER LISTING
Whitelist Common	0.50	$(1-0.50+0.01)X = 0.51X$
Public Common	0.10	$(1-0.10+0.01)X = 0.91X$

Let Rare activation $A_R = Y$ with $Y > X$. The same fractions apply to Y. Figures assume no pre-mint quest score ($U = 0$); a positive U reduces the buy, up to χ of the discounted amount.

STORY

Maya mints a whitelist Common ($\delta = 0.50$). After the PonsFamily listing she buys $0.51X$ on that market and activates. Her TBA is created; base points equal a_{Common} and her holding clock starts.

6.2 Reward from Pons into treasury

Suppose Reward from Pons that week is $R_{\text{pons}} = 90{,}000$ $PEPEH (teaching figure).

$$R = R_{\text{pons}} = 90{,}000$$

Royalties add to the same R, independently, but only after the swap. Secondary sales are priced in the sale currency rather than in $PEPEH, so a week with notional V_{sec} has the router collect ρV_{sec} in that currency and contribute $\rho V_{\text{sec}}/p$ $PEPEH at the prevailing rate. The example below holds $V_{\text{sec}} = 0$ so the Reward from Pons arithmetic stays legible and independent of p; in a live week both terms are present.

Pay-day:

$$\text{Holder pool} = 0.95 \times 90{,}000 = 85{,}500, \qquad \text{Team} = 4{,}500$$

6.3 Points split

Three activated desks (teaching points aligned with published base-point style):

DESK	SETUP	POINTS P
A	Common, fresh, no plan	10
B	Common × 1.5 plan, fresh	15
C	Rare × 2.0 plan, fresh	36

Holding changes the same table materially. After the 20-week fast phase, desk A reaches 40, desk B reaches $10 \times 1.5 + 30 = 45$, and desk C reaches $18 \times 2 + 30 = 66$: $\sum P$ rises from 61

to 151, and desk A's share rises from 16.4% to 26.5%. At the $+45$ ceiling in week 80 the three desks reach 55, 60, and 81, putting desk A at 28.1%.

Crew compounds on top of whatever the table holds. Take the fresh case and suppose desk A's owner activates a second fresh Common. Both characters in that wallet earn $G = 1.075$, so each is worth 10.75 and the wallet holds 21.5 of a new $\sum P = 72.5$ — a 29.7% share, against the 28.2% the same two characters would take with no crew multiplier. The wallet is worth more than its characters added up, which is the intent; the concavity is what stops that advantage compounding without limit as w_i grows.

$$\sum P = 61$$

Using holder pool $85{,}500$:

DESK	SHARE	REWARD
A	$10/61$	$\approx 14{,}016$
B	$15/61$	$\approx 21{,}025$
C	$36/61$	$\approx 50{,}459$

Unactivated NFTs receive zero.

6.4 End-to-end holder path

1. Mint NFT on OpenSea (whitelist or public) — no TBA.
2. Claim once; δ_i is recorded against the token ID.
3. $PEPEH lists on PonsFamily; liquidity live.
4. Buy B_i on that market (discounted activation minus converted quest score, plus the fee); activate; TBA bonded; t_i starts.
5. Hold and optionally upgrade → $P_i = a_r M_i G_i + Q_i + \Lambda_i$. Before mint the same quests added to U, not Q_i.
6. Each Pay-day, receive $s_H R \cdot P_i / \sum P$ into the TBA.

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7. Risks & limits

- **No return guarantee.** Pay-day size tracks real treasury inflows that week.
- **Quiet weeks.** If neither Reward from Pons nor royalty-bearing secondary sales occur, $R = 0$ and the Pay-day pot for that week is zero. Points determine how a pot is divided, never whether a pot exists, and unpaid weeks do not accrue a claim against future distributions.
- **Royalty enforcement.** EIP-2981 is advisory. Marketplaces may ignore it, so R_{roy} depends on where the collection trades and can be zero.

- **Crew favours larger wallets.** G_i redistributes toward wallets holding several activated characters, partially offsetting the holding bonus's tilt toward small holders. At $\gamma = 0.15$ a single-character wallet gives up roughly 8.5% of its share and top-10 concentration rises about one percentage point; γ is bounded for this reason and is not a free dial.
- **Streak reset is unforgiving by design.** One missed UTC day sets s_i and Q_i to zero, so a holder can lose $Q^{\max} = 63$ points to a single lapse, a connectivity failure, or a misread of the UTC boundary. If no day is missed, Q_i stays. Pre-mint quest score U is unaffected, but the streak bonus on subsequent daily awards is lost. This is intentional: the reset is what gives the streak meaning. It also means quest points reward only sustained daily participation, are worth close to nothing to casual participants, and may discourage a holder who breaks a long streak from resuming. Holders who cannot commit daily should treat Q_i as zero when reasoning about their share.
- **Quest dilution and off-chain verification.** Q_i raises $\sum_j P_j$, so a holder who never quests loses share. The reset bounds this sharply — modelled quest share of $\sum_j P_j$ is 5.8% — but the upper bound if participation were universal and perfect remains roughly 21% at 25% participation and 30% at 40%. The dilution is by choice rather than by capital — quests are free and open to every holder — but it is real and is stated rather than buried. Verification is also the weakest link in the protocol: X publishes no queryable record of likes or reposts, so those two tasks rest on structural limits and review rather than proof, and only the reply task carries a verifiable artefact. Q_i is therefore the one points term not fully determined on-chain.
- **Holding-bonus dilution.** The bonus raises $\sum_j P_j$ as well as P_i. Holding longer than the field increases your share; holding at the same pace as the field does not. For a high-a_r token, ageing in step with the field *reduces* its share — that is the intended redistribution, not a defect.
- **Market risk.** Listing prices move with flow; activation cost in quote terms is not fixed after launch.
- **Smart-contract risk.** Collection, fuel, TBA, and distributor addresses are authoritative only when published on official PepeHood channels.
- **Admin permissions.** $PEPEH has no pause and no blacklist. Protocol contracts are not upgradeable. The Pay-day distributor has no arbitrary withdrawal. Leftover admin after mint is a multisig; that address publishes with the verified contracts. Staging Activation and Pay-day distributor are live on mainnet — full addresses on Verify.
- **Pre-mint.** Until mint and activation, no historical Pay-day exists; examples here are pedagogical.

7.1 Verification surface

The permission matrix is public now: no pause, no blacklist, not upgradeable, no arbitrary distributor withdrawal, Reward from Pons routed to the Pay-day distributor, 5% royalty that cannot be increased. At mint we publish, in one place: every NFT-related contract address with verified source, the leftover-admin multisig, activation and upgrade $PEPEH prices, and treasury destinations. After mint, $PEPEH lists on PonsFamily; the launch, pool, and lock described in §5.4 publish on Verify with explorer links.

7.2 On-chain verification

Staging NFT, $PEPEH, and Activation are deployed on Robinhood Chain mainnet (4663) with explorer links on Verify. OpenSea collection + PonsFamily token addresses land at mint (new Activation deploy). Whitelist mint flags and activation amounts publish before `freeze()`.

7.3 Products are not the protocol

PepeHood also operates product interfaces — “Trade” (a trading interface that builds transactions for the user to sign) and “Alpha” (informational research only, no execution). These are applications with their own backends, separate from the NFT, $PEPEH, activation, TBA, and distributor contracts. $PEPEH listing on PonsFamily is likewise not a PepeHood contract — it is the public venue for deploy and liquidity after mint. None of these can alter protocol rules, and using Trade or Alpha is never required to mint, activate, or receive Pay-day. Product pricing accepts native ETH or $PEPEH only; that $PEPEH payment discount is a product-revenue reduction, distinct from the activation discount in §5.5, and is not funded by the Pay-day distributor, does not mint $PEPEH, and does not dilute holder rewards.

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8. Summary

PepeHood couples an ERC-721 identity with an activation-gated ERC-6551 desk, $PEPEH, post-mint liquidity on PonsFamily, a commit–reveal activation discount in place of any token distribution, time-weighted points, and a points-proportional weekly Pay-day funded by Reward from Pons and secondary royalties. Fee rates f, ρ, s_H, and s_T, the discount distributions, the holding-bonus parameters ℓ_1, T_1, ℓ_2, Λ, κ, the crew coefficient γ, and the quest parameters q, σ_7, σ_{28}, C are fixed in this specification. R_{pons} is observed from the PonsFamily listing. Supply splits, activation ladders, and mint price are published at mint so holders can verify the liquidity parameters against the formulas in §4. $PEPEH is the only protocol token; “fuel” is role language only.

PepeHood Protocol Whitepaper v1.0 — public technical reference. Readable web walkthrough with additional narrative examples: `/whitepaper` on the official site. Rebuild PDF: `npm run whitepaper:pdf`