

Design Documentation

This is one piece of the **Design Documentation** for Frontiers Beta 2026-2. For a guide to the full Design Documentation set and how to read it, see [Designing With Frontiers](#).

If you want the ruleset only, skip to **Default Rules** using the left-side menu, or read the [Frontiers Overview](#) for the condensed version. If you want the reasoning behind those rules, read top to bottom.

This section is the teaching part of the document. It exists to explain how tabletop games handle the things characters own, wear, and wield. None of this is Frontiers-specific. If you already understand how equipment systems vary across games, you can skip ahead to Part Two.

What Equipment Does

Every TTRPG character has stuff. Weapons. Armor. Tools. Trinkets. Sometimes magical items, sometimes mundane gear, sometimes high-tech devices.

The mechanical layer that handles this stuff varies enormously, but it's always doing one of a few jobs:

- **Defining what a character can do physically.** A character with a sword can attack with that sword. A character without one can't. Equipment grants capability the character wouldn't otherwise have.
- **Modifying how the character does things.** Better armor protects more. Sharper weapons hurt more. Equipment turns the dial on existing capability.
- **Granting special abilities.** A magical artifact might let the wielder fly, breathe fire, or rewrite reality. Equipment becomes a source of unique mechanical effects.
- **Carrying narrative weight.** A family heirloom, a cursed relic, a beloved companion's gift. Equipment can be entirely narrative without doing any of the above.

The names vary across systems:

- Equipment (most d20 lineage games)
- Gear (Mothership, Free League's Year Zero Engine)
- Inventory (general)
- Stuff (Knave)
- Loadout (Blades in the Dark)

Whatever it's called, equipment is the layer that connects the character to the physical world they operate in.

How Different Games Handle Equipment

The diversity here is enormous. A few examples to make the design space concrete:

Pathfinder (Paizo, 2009/2019) treats equipment as a deeply detailed system. Hundreds of weapons, armor types, tools, and magical items, each with specific stats, costs, and rules. Magical items have rarity tiers, attunement limits, and crafting requirements. Equipment is a major mechanical layer, almost as load-bearing as character class for build identity.

Mothership (Tuesday Knight Games, 2018) treats equipment as survival pressure. Every item carried is something to track. Ammo runs out. Armor is destructible. Equipment lists are short, lethal, and decisive. Players obsess over loadouts because each piece of gear is the difference between survival and death.

Blades in the Dark (One Seven Design, 2017) uses Load-based loadouts. Players don't pre-pick equipment; they declare what they "had" mid-Score, drawing from a Load budget. This abstracts gear into narrative flexibility while still imposing a meaningful constraint.

Knave (Ben Milton, 2018) uses slot-based inventory tied directly to a stat (Constitution = slot count). No item types, just slot costs. A torch is one slot, a sword is one slot, a heavy chest is many slots. Everything is reduced to how much room it takes.

Mörk Borg (Stockholm Kartell, 2019) uses minimal equipment rules. Items have damage dice or simple effects, and inventory is loosely tracked. Equipment matters in moments, not as a constant management exercise.

Lasers & Feelings (John Harper, 2013) has no equipment system at all. Characters might have things, but those things never appear on the sheet and never have rules.

The point is not that any of these is wrong. They are answering the same design question with different priorities. **Some games make equipment a major mechanical layer. Some make it survival pressure. Some abstract it into narrative tools. Some skip it entirely.**

The choice cascades into character creation, encounter design, loot rewards, and downtime activities. Get it right and equipment feels meaningful. Get it wrong and equipment becomes either a spreadsheet exercise or a forgotten background detail.

The Three Questions Every Equipment System Answers

Underneath all the implementations, every Equipment system makes three choices:

1. What does equipment do mechanically?

The range is wide:

- **Stat modifiers.** Equipment adds bonuses to attacks, defenses, skills, or attributes. Most d20 games default here.

- **Abilities or actions.** Equipment grants new things the character can do. Magic items, technological devices, specialized tools.
- **Narrative permission.** Equipment unlocks story options without affecting numbers. Having a key opens a door; the key doesn't have stats.
- **Pure decoration.** Equipment exists in the fiction but has no mechanical interaction. Common in narrative-forward systems.

Most systems mix these. The dominant pattern reveals what kind of game it is. A heavily stat-modifier-driven equipment system feels tactical. A heavily ability-granting system feels magical. A heavily narrative-permission system feels investigative.

2. How does equipment scale with characters?

Three broad patterns:

- **Static items.** A sword is a sword forever. Characters get better; their equipment stays the same. Progression comes from finding new equipment, not improving old equipment.
- **Growing items.** Equipment improves alongside characters. Bonded weapons gain ranks, signature tools level up, magical items awaken to higher tiers.
- **Replacement progression.** Old equipment becomes obsolete. New encounters justify new gear. Loot drops drive build evolution.

The choice shapes the game's economy. Static items make character growth dominant. Growing items create item-as-companion identity. Replacement-driven progression keeps players hunting for the next upgrade.

3. What constrains what a character can carry or equip?

Constraints come in many forms:

- **Carrying capacity.** Numerical or slot-based limits on total inventory.
- **Equip slots.** Fixed slots ("1 weapon, 1 armor, 2 accessories") that cap simultaneous use.
- **Attunement limits.** A small number of magical items can be "active" at once.
- **Logical limits.** A character can't wield two greatswords; physics and anatomy constrain what's possible.
- **No constraint.** Inventory is purely narrative; players carry "whatever makes sense."

Most systems use multiple constraint types layered together. The constraint choice determines how much logistics gameplay the system contains.

The Point

There is no correct answer to any of these questions. Each combination produces a different feel of play.

But there is a correct consistency: an equipment system should match the rest of the game's tone. Detailed equipment in a narrative system feels like overhead. Abstract equipment in a tactical

system feels like a missing layer. The equipment system should reinforce the game's identity, not fight against it.

A designer's most consequential decision in this layer is **how much weight equipment carries in the overall mechanical stack**. Equipment-heavy systems put gear at the center; equipment-light systems push it to the margins. Both are valid. The choice should be deliberate.

This section covers the specific choices *Frontiers* made and the reasoning behind them. The earlier section explained the field. This section explains the answer.

The Design Question

When designing *Frontiers*' Equipment, the goal was a system that:

- Used the same Reference Level math as Abilities, so players learn one rule
- Distinguished baseline gear from special items without separate subsystems
- Let designers add equipment-specific Abilities cleanly through the existing Ability framework
- Stayed setting-agnostic, so fantasy swords, sci-fi blasters, and modern tools all worked under the same rules
- Avoided over-prescribing slot architecture, because different genres need different inventory pressures

Most existing systems either prescribe heavy equipment infrastructure (D&D-style item tables with specific weights and prices) or strip equipment to almost nothing. *Frontiers* wanted a minimal mechanical core with maximum room for system-level expansion.

That goal narrowed the design space:

Goal	Reasoning	Constraint
Reference Level for Equipment	Same math as Abilities	Argues against item-specific gating
Enhanced/non-enhanced distinction	Designers and players need vocabulary for special items	Argues for clear terminology, not a separate system
Equipment-as-Ability source	Items can grant Abilities cleanly	Argues for unified Ability framework
Genre-agnostic	A Level 3 item works the same in any setting	Argues against prescribed item lists
No mandatory carrying capacity	Different genres need different inventory pressures	Argues for tracking-optional inventory

The Tradeoffs Considered

Frontiers studied several Equipment architectures:

Detailed item systems (Pathfinder, older D&D editions). Maximum specificity. But heavy designer workload to define every item, and forces all systems built on the engine to match the detail level.

Slot-based abstraction (Knave, Mörk Borg). Clean inventory tracking. But locks systems into slot assumptions that may not fit their genre.

Loadout-based (Blades in the Dark). Maximum narrative flexibility. But hard to use as a base for systems that want detailed equipment differentiation.

Survival-pressure (Mothership). Strong tonal alignment with horror/tension. But genre-locked to scarcity tones.

The answer Frontiers landed on: **Equipment uses the same Reference Level math as Abilities, with three structural state (Equipped, Activated, Consumable) and a clear vocabulary distinction between enhanced and non-enhanced items.**

Frontiers' Answer — Levels, States, and Enhancement

Equipment in Frontiers uses three core mechanics:

Mechanic	What It Does
Equipment Level	Determines ✂Energy interaction with the user, using the same Reference Level math as Abilities
Equipment State	Defines whether the item is Equipped, Activated, or Consumable (which determines how its Energy interaction behaves)
Competency Requirement	Some items require Competencies for proper use (see the Skills design doc)

Equipment Level and Reference Level

Every item has a Level. By default, an item has **Level 0** unless its design specifies otherwise.

Level 0 items are the baseline gear of the engine: ordinary swords, common armor, basic tools, mundane consumables. They carry no Energy interaction with the user. A Level 0 sword works the same way for a Reference Level 1 character as for a Reference Level 10 character.

Items with Level above 0 are **enhanced** items. The term is genre-agnostic. What most fantasy systems call a "magic sword" is, in Frontiers vocabulary, an "Enhanced sword" of some Level. A sci-fi system's "experimental rifle" is also an Enhanced item. A horror system's "cursed locket" is Enhanced. The framing covers any item where the Level matters.

The user's **Reference Level** determines how an Enhanced item interacts:

- **Reference Level $\geq$ Item Level:** the item works normally, no Energy interaction.
- **Reference Level $<$ Item Level:** Energy interaction kicks in, and the form of that interaction depends on the item's State.

This is the same Reference Level rule used for Abilities. (See the Abilities design doc for full Reference Level rules.)

Why "Enhanced" Instead of "Magic"

Most TTRPGs default to "magic items" as the term for special equipment, which locks the engine into a fantasy frame. A sci-fi designer building on Frontiers shouldn't have to translate "magic items" into "tech items" to make their setting work.

"Enhanced" is genre-neutral. It describes what the item is, not how it got that way. A Level 5 enhanced sword in a fantasy setting was forged with arcane runes. The same Level 5 enhanced sword in a sci-fi setting was machined with monomolecular edges. The same item in a science-fantasy setting might be both. The mechanical layer doesn't care.

Players and designers will use whatever in-fiction term fits their setting (magic, blessed, runed, augmented, hyperforged, cursed, named). The engine uses "Enhanced" as the cross-genre default.

Equipment States

Frontiers sorts items into three state based on how they interact with the user. The state determine how Energy interaction manifests, not what the item is in fiction.

Equipped Items (Persistent Energy Interaction)

Items that provide continuous benefit while worn or wielded: armor, weapons, accessories, foci, augmentations.

If the item is Enhanced and above the user's Reference Level, the user's **maximum $\nearrow$ Energy is reduced** by the difference for as long as the item remains Equipped.

This makes Enhanced Equipped items a trade. The user gets the item's benefits (whatever they are) but pays an ongoing cost in reduced Energy ceiling. A character with an Enhanced sword that's 2 Levels above them effectively trades 2 Energy of headroom for the sword's benefits.

This persists until the item is unequipped, the user gains enough Reference Levels to no longer need to pay, or the item is replaced.

Activated Items (Per-Use Energy Cost)

Items that produce effects when used: devices, foci, tools, magical implements, technological gadgets.

If the item is Enhanced and above the user's Reference Level, using the item costs Δ Energy equal to the Level difference at the moment of activation. There is no continuous cost; the user only pays when they actually use the item.

If the item also defines its own Energy cost (some powerful items have built-in costs regardless of Level), the user pays both the Level difference cost and the item's defined cost.

Consumables (Single-Use Energy Cost)

Items that are used up: potions, grenades, medkits, single-use scrolls, charges that don't refill.

The Energy interaction works the same as Activated items: pay the Level difference at use. After use, the item is gone.

Consumables are mechanically identical to Activated items in their Energy interaction. The difference is whether the item persists after use.

Why Three States Instead of One

A single "all items work the same" rule would be cleaner but would lose useful design space.

The three state let designers express genuinely different item shapes. An Enhanced sword (Equipped) creates ongoing tension. The user accepts a permanent Energy cost for a permanent benefit. An Enhanced grenade (Consumable) creates moment-to-moment decisions. When is the right time to use this once-only resource? An Enhanced focus (Activated) creates tactical timing. When do I burn Energy for the boost?

Each state produces a different feel. Designers building items can choose which feel matches what they want.

Equipment Granting Abilities

Some items grant Abilities to their user. A magical sword might grant a Cleaving Strike Ability. A focus might grant a Magic Missile Ability. A grappling hook might grant a Pull Ability.

When an item grants an Ability:

- **The Ability's Level equals the item's Level.** A Level 5 enhanced sword that grants a Cleaving Strike Ability grants it as a Level 5 Ability.
- **The user must be able to equip the item to use the Ability.** If the item's Level above Reference Level would prevent equipping (max Energy would drop below 0), the Ability is inaccessible.

- **Energy cost for using the Ability follows normal Ability rules.** The user's Reference Level is compared to the Ability's Level (which equals the item's Level), and Energy is paid for the difference at use.

The rule keeps things consistent. Abilities work the same whether granted by an Archetype, Origin, Background, or item. The only twist for items is that the granted Ability shares the item's Level, which means the user's relationship with the item determines their relationship with the Ability.

Inventory and Slot Tracking

The default Frontiers engine **does not** define carrying capacity, slot limits, or inventory tracking rules. The default assumption is that a character carries what makes narrative sense.

This is intentional. Different genres need different inventory pressures:

- A survival-horror system needs strict tracking. Every bullet counts.
- A heroic fantasy system probably wants loose tracking. Adventurers carry their kit without micro-managing.
- A modern intrigue system might track only specific items (weapons, key tools) and assume the rest.

Designers building on Frontiers should consider pairing more complex equipment systems with carrying capacity rules of their own design. Common approaches:

- **Slot-based.** Each item takes 1+ slots, characters have a slot cap.
- **Stat-tied.** Carrying capacity derived from a physical attribute.
- **Encumbrance tiered.** Light/medium/heavy load tiers with escalating penalties.
- **Specific tracking only.** Track ammunition and signature items; assume the rest.
- **Narrative.** GM decides on a case-by-case basis.

The engine staying neutral here keeps it adaptable. Adding a system-level inventory layer is a normal part of building on Frontiers.

A note on **negligible items**: small items that are difficult to count individually (an archer's arrows, a writer's ink, a smith's nails) might not need explicit tracking in some games. Designers can mark items as "negligible" within their own systems if explicit tracking would add overhead without adding value.

Everything below this point is the actual mechanics. The earlier sections explained the theory. This section explains how it runs at the table.

What Equipment Is

Equipment represents physical items that a character carries, wears, wields, activates, or consumes.

Equipment may: - Modify derived statistics - Grant new Actions or Abilities - Require Competencies - Interact with $\nearrow$ Energy - Have a Level

Equipment does not automatically scale. Scaling must be explicitly written into the item's design.

Equipment Level

Every item has a Level. Items default to **Level 0** unless their design specifies otherwise.

- **Level 0 items** are baseline gear ("non-enhanced"). They carry no $\nearrow$ Energy interaction.
- **Items above Level 0** are **Enhanced** items. They interact with the user's Reference Level (see below).

The maximum recommended Equipment Level is **15**, matching the Ability Level cap. Systems built on Frontiers may extend this, but should also extend Reference Level scaling proportionally.

Reference Level

The **Reference Level** is the comparison value used for Equipment Energy interaction. It works identically to Reference Level for Abilities:

Actor	Reference Level
Player Character	Total Character Level (sum of all Archetype Levels)
Non-Player Character	Defined Level set by GM or system designer
Item activating its own effect	The item's own Level (rare; mostly for autonomous items)

(See the Abilities design doc for full Reference Level rules.)

Equipment states

Items fall into one of three structural state that determine how Energy interaction behaves:

Equipped Items (Persistent $\searrow$ Energy Reduction)

Items that provide continuous benefit while actively worn or wielded.

If an Equipped item's **Level exceeds the user's Reference Level**, the user's **maximum $\searrow$ Energy is reduced** by the difference while the item remains Equipped.

The reduction: - Applies immediately upon Equipping - Persists while the item is Equipped - Is recalculated if the user's Reference Level changes - Is restored when the item is Unequipped

Example: A Reference Level 3 character Equips a Level 5 Enhanced armor. Difference = 2. Maximum $\searrow$ Energy is reduced by 2 while the armor is worn.

If equipping multiple Enhanced items, the reductions stack. If the total reduction would push maximum $\searrow$ Energy below 0, the most recently Equipped item cannot be Equipped.

Activated Items (Per-Use $\searrow$ Energy Cost)

Items that produce effects only when used.

If an Activated item's **Level exceeds the user's Reference Level**, the user pays $\searrow$ Energy equal to the difference at the moment of activation.

Example: A Reference Level 3 character uses a Level 5 Enhanced focus. Cost = 2 $\searrow$ Energy at activation.

If the user lacks sufficient $\searrow$ Energy, they may **Overspend** (see the Flow of Play design doc for Overspend rules).

If an Activated item defines its own Energy cost in addition to the Level difference, both costs are paid.

Consumables (Single-Use $\searrow$ Energy Cost)

Items that are used up after a single activation.

Energy interaction works identically to Activated items: pay the Level difference at use, plus any defined Energy cost.

After use, the Consumable is removed from the user's inventory.

Equipped vs. Carried vs. Stored

Items exist in one of three states:

State	Definition	Effect
Equipped	Actively worn or wielded	Passive bonuses apply, usable without draw cost

State	Definition	Effect
Carried	Accessible but not readied	Drawing or readying costs 1 ♦AP
Stored	Not immediately accessible	Cannot be used without retrieval (often requires extended access)

Only Equipped items apply passive bonuses or are immediately usable.

Swapping Equipped items typically costs 1 ♦AP unless a system rule overrides this.

Competency Requirements

Some items require a **Competency** for proper use. A character lacking the required Competency may attempt to use the item, but suffers a system-defined penalty:

- The item may not function effectively
- The user may roll at Disfavor
- The Difficulty Rating may increase
- The benefit may be reduced
- Narrative limitations may apply

Competencies represent baseline operational proficiency (weapon types, armor types, languages, vehicles, magical systems). They are separate from Skills.

(See the Skills design doc for full Competency rules.)

Items Granting Abilities

Some items grant Abilities to their user. When an item grants an Ability:

- **The Ability's Level equals the item's Level.** A Level 5 Enhanced sword that grants a Cleaving Strike grants it as a Level 5 Ability.
- **The user must be able to Equip the item to use its granted Abilities.** If equipping is impossible (would push maximum ⚡Energy below 0), the Ability is inaccessible.
- **Energy cost for the Ability follows normal Ability rules.** Reference Level is compared to the Ability's Level (which is the item's Level), and Energy is paid for the difference per use.

Granted Abilities follow the universal Ability anatomy and rules. (See the Abilities design doc for full Ability rules.)

Activated Item Resolution

When using an Activated or Consumable item:

1. Declare the activation.
2. Pay any required ♦AP cost (typically 1, unless the item specifies otherwise).
3. Pay any required ⚡Energy cost (Level difference plus any item-defined cost).
4. Resolve the item's effect.
5. If the item is a Consumable, remove it from inventory.

If the item requires a roll (some Activated items do), use standard Resolution Roll procedures.

Weapons — Engine Structure

The engine treats weapons as a type of Equipment. A weapon's design specifies:

- The Attribute used for attack rolls (typically ♦Vigor or □Finesse)
- Damage dealt on a successful hit
- Range in □Units
- Any traits, properties, or special interactions

Weapons do not inherently cost ⚡Energy. Energy interaction only occurs if: - The weapon's Level exceeds the user's Reference Level (Equipped reduction applies while wielded), or - The weapon has an Activated feature

Damage values and scaling are system-defined. The engine does not prescribe damage tables.

Armor — Engine Structure

The engine treats armor as a type of Equipment. Armor's design specifies:

- Bonus to □Physical Defense
- Any movement or other penalties
- Required Competencies (if any)

Armor does not inherently cost ⚡Energy. Energy interaction only occurs if the armor's Level exceeds the user's Reference Level (in which case the reduction applies while worn).

Multiple armor pieces stacking, layered armor systems, and shield interactions are system-defined. The engine does not prescribe armor stacking rules.

Inventory

The default engine **does not** prescribe inventory tracking rules. Carrying capacity, slot limits, weight tracking, and encumbrance are system-defined.

A character's inventory is assumed to contain whatever makes narrative sense for their situation. Systems built on Frontiers may add inventory rules as needed for their genre.

Some items are small or numerous enough that explicit tracking adds overhead without value (an archer's arrows, a smith's nails, a writer's ink). Systems may treat such items as negligible and skip individual tracking.

Equipment Damage and Durability

The default engine **does not** include item damage, breakage, or durability rules. Equipment is assumed to remain functional unless specifically destroyed.

Systems built on Frontiers may add durability rules where appropriate (especially in survival-horror or grimdark genres). The engine staying neutral here lets each system make this choice deliberately.

Example Items

The following examples show how the engine structure looks in practice. They cover one weapon, one armor piece, one Enhanced item with a granted Ability, and one utility item.

These are example items, not engine-prescribed equipment.

Iron Longsword

Type: Weapon (Equipped)

Level: 0 (non-enhanced)

Required Competency: Martial Weapons

Attribute: ♦Vigor

Damage: 4

Range: Melee (1 □Unit)

Effect: A standard one-handed sword. Roll ♦Vigor vs target's □Physical Defense. On success, deal 4 damage.

A baseline weapon. No ✂Energy interaction at any Reference Level.

Reinforced Plate

Type: Armor (Equipped)

Level: 0 (non-enhanced)

Required Competency: Heavy Armor

Effect: +3 to ☐Physical Defense. -1 ☐Unit to Movement.

A baseline heavy armor. No ⚡Energy interaction at any Reference Level. Wearer must have Heavy Armor Competency to avoid penalty.

Stormblade

Type: Weapon (Equipped, Enhanced)

Level: 5

Required Competency: Martial Weapons

Attribute: ♦Vigor

Damage: 6

Range: Melee (1 ☐Unit)

Granted Ability: Thunderstrike (Level 5, 1 ♦AP, Melee, target one creature). On a successful hit, deal weapon damage and the target is pushed 1 ☐Unit and falls prone.

An Enhanced weapon. A Reference Level 5+ wielder uses it freely. A Reference Level 3 wielder reduces maximum ⚡Energy by 2 while wielding it, and pays 2 ⚡Energy each time they use Thunderstrike.

Advanced Medkit

Type: Consumable (Enhanced)

Level: 6

Action Cost: 1 ♦AP

Effect: Restore 6 ♦HP to the target. Item is consumed after use.

An Enhanced single-use healing item. A Reference Level 4 user pays 2 ⚡Energy when activating. The item is consumed after use regardless of cost.

Tuning the Feel

The default rules give Frontiers' baseline feel. The knobs below let designers tune that feel without breaking the engine.

Equipment Density

How much equipment a character routinely owns shapes whether the system feels gear-driven or character-driven.

Density	Effect	Good for
Low (each item matters individually, characters carry only essentials)	Equipment feels precious, replacement is significant	Survival or low-magic systems
Default (characters have a working kit, gain occasional new pieces)	Balanced. Equipment is meaningful but not dominant	Most Frontiers-based systems
High (characters have many items, swap often)	Equipment becomes a major build axis	Loot-driven or high-magic systems

Enhanced Item Frequency

How often Enhanced items appear in play shapes whether they feel rare and special or routine.

- **Rare** — Enhanced items are major narrative events. Each one is named and remembered.
- **Default** — Enhanced items appear regularly. Most characters own a few; high-Level characters own many.
- **Common** — Enhanced items are baseline expectations. Characters routinely have multiple Enhanced items active.

Carrying Capacity

The default engine does not prescribe carrying capacity. Systems may add it in many forms:

- **Slot-based** (Knave-style). Each item is N slots; characters have a slot cap derived from a stat.
- **Weight-based**. Each item has a weight; characters have a weight cap.
- **Encumbrance tiers**. Light/medium/heavy load tiers with escalating penalties.
- **Specific tracking only**. Track ammunition and signature items; assume the rest.
- **No tracking**. Inventory is purely narrative.

The choice depends on the system's tone. Survival systems benefit from strict tracking; heroic systems often prefer no tracking.

Equipment Durability

The default engine does not include durability rules. Systems may add them:

- **Hit point-based**. Items have HP; combat or environmental damage reduces it.
- **Save-based**. Items roll against breakage on critical events.
- **Use-based**. Items have a fixed number of uses before requiring repair.

- **No durability.** Items remain functional indefinitely.

Durability adds tracking overhead and tonal weight. Use it deliberately.

Edge Cases

The following rulings apply unless a specific rule explicitly overrides them.

Multiple Enhanced Items Equipped Above Level. Each Enhanced item Equipped above the user's Reference Level reduces maximum $\nearrow$ Energy by its individual Level difference. Reductions stack.

If equipping a new item would reduce maximum $\nearrow$ Energy below 0, the new item cannot be equipped.

Reductions recalculate immediately if any such item is Unequipped.

Reference Level Increase While Equipped. If a user gains Reference Levels while wearing Enhanced Equipped items above their previous Reference Level:

- Recalculate maximum $\nearrow$ Energy immediately.
- Remove any reduction that no longer applies.
- No Action cost is required for recalculation.

Current $\nearrow$ Energy does not automatically increase to fill the new headroom.

Unequipping Above-Level Items Mid-Encounter. When an above-Reference-Level item is unequipped during Encounter Play:

- Maximum $\nearrow$ Energy increases immediately to its uncapped value.
- Current $\nearrow$ Energy does not automatically increase.

Example: Maximum was reduced from 8 to 6 with the item Equipped. Current $\nearrow$ Energy is 4. Upon unequipping: maximum returns to 8, current remains 4.

Unequipping typically costs 1 $\blacklozenge$ AP unless a system rule overrides this.

Equipping Items Mid-Encounter. Equipping an item mid-Encounter typically costs 1 $\blacklozenge$ AP. Maximum $\nearrow$ Energy reduction applies immediately if applicable.

If equipping would reduce maximum below current $\nearrow$ Energy, current $\nearrow$ Energy is reduced to the new maximum. No Overspend occurs.

If equipping would reduce maximum below 0, the item cannot be equipped.

Dropping Equipment. Dropping a Carried item requires no $\blacklozenge$ AP and occurs immediately.

Dropping an Equipped item typically costs 1 $\blacklozenge$ AP unless a system rule overrides this.

Dropped items remain in the Encounter space at the user's previous position.

Stacking Equipment Effects. If multiple items modify the same statistic:

- Additive bonuses stack unless explicitly stated otherwise.
- Identical named effects do not stack unless explicitly stated.

If two items both grant Favor on the same type of roll, only one instance applies unless a system rule allows stacking.

Equipment Modifying an Ability. If equipment modifies an Ability granted from another source:

- Apply the equipment modification after the Ability's base effect, unless explicitly stated otherwise.

If equipment grants its own Ability, that Ability follows normal Ability rules with the item's Level as the Ability's Level.

Using Granted Abilities Without Equipping. A user cannot use an item's granted Ability without first being able to Equip the item. If equipping is impossible (would push maximum $\nearrow$ Energy below 0), the granted Abilities are inaccessible.

Holding the item Carried but not Equipped also does not allow access to granted Abilities.

Energy Cost on Failed or Interrupted Activation. If an Activated item's effect fails or is interrupted after Energy is paid, the Energy is not refunded unless the item explicitly states otherwise.

This matches Ability rules. Energy is spent at activation, not at successful resolution.

Items at Level 0 With Granted Abilities. A Level 0 item may grant Level 0 Abilities. These Abilities cost no $\nearrow$ Energy at any Reference Level (since the difference can never be positive).

This is rare but legal. Most items granting Abilities are Enhanced.

Variants

Variants modify how Equipment behaves while preserving the core structure: Equipment has Levels, Reference Level governs Energy interaction, three States define interaction shape.

Strict Equip Slot Variant

What changes: Replace open Equipping with fixed equip slot categories. Common implementation:

- 1 Primary Weapon slot
- 1 Secondary Weapon slot
- 1 Armor slot

- 2 Accessory slots
- N Utility slots

Items outside these slots may be Carried but not Equipped.

What stays: Energy interaction rules, States, Competencies.

What shifts: - Reduces stacking exploits. - Clarifies build identity. - Simplifies adjudication in combat-heavy systems.

Use when: Building a tactical system where slot management is part of the gameplay.

Carrying Capacity Variant

What changes: Add a carrying capacity system to the engine. Common implementations include slot-based (Knave-style), weight-based, or encumbrance tier systems.

What stays: Equipment Levels, States, Energy interaction.

What shifts: - Inventory becomes a tracked resource. - Encourages loadout decisions. - Adds bookkeeping.

Use when: Building a system where inventory pressure is part of the genre (survival, dungeon crawl, scavenging).

Attunement Variant

What changes: Limit the number of Enhanced items that may apply effects simultaneously.
Example formula:

$$\text{Maximum attuned items} = 2 + \text{Resolve Modifier}$$

Only attuned items: - Apply passive bonuses - Reduce maximum $\nearrow$ Energy (if above Reference Level)
- May be activated

What stays: Item Levels, States, Energy math.

What shifts: - Prevents high-Level gear stacking. - Encourages strategic equipment selection. - Adds a build-planning layer.

Use when: Building a system where Enhanced item proliferation should be deliberately limited.

Delayed Energy Reduction Variant

What changes: When equipping Enhanced gear above Reference Level, the maximum $\nearrow$ Energy reduction does not apply immediately. Instead:

- Reduction applies at the start of the next Round, or
- Reduction applies only during Encounter Play.

What stays: All other Energy and Equipment rules.

What shifts: - Softens mid-Encounter equip penalties. - Makes tactical swaps more viable. - Slightly reduces immediate consequence tension.

Use when: Building a system where mid-fight equipment changes should be a viable tactical option.

Item Durability Variant

What changes: Items have HP or a save mechanic that tracks wear and breakage.

What stays: All other Equipment rules.

What shifts: - Equipment becomes consumable over time. - Repair becomes a gameplay activity. - Adds tracking overhead.

Use when: Building a survival, grimdark, or post-apocalyptic system where equipment fragility reinforces tone.

Alternatives

Alternatives substantially restructure how Equipment functions in the engine. Adopting these requires recalibration of pacing and balance.

No Level Interaction Alternative

Core change: Remove Level-based $\neq$ Energy interaction entirely. Equipment never reduces maximum Energy and never costs Energy due to Level difference.

Balance must rely on: - Rarity - Narrative gating - Economic limits

What you gain: - Simpler math. - Removes progression tension from gear.

What you lose: - The "trade-off for power" tactical layer Energy interaction provides. - A unifying mechanic between Equipment and Abilities.

Use when: Building a system where equipment power should be gated entirely by rarity and acquisition rather than ongoing cost.

Narrative Inventory Alternative

Core change: Remove all inventory tracking. Players have whatever the GM agrees they would plausibly have. No slots, no weight, no carrying capacity in any form.

What you gain: - Eliminates bookkeeping. - Strong narrative-forward feel.

What you lose: - Any tactical logistics gameplay. - Constraint as a source of interesting decisions.

Use when: Building a system where inventory should disappear into the fiction entirely.

Gear-as-Ability Alternative

Core change: Equipment provides no passive modifiers. Each item grants a defined Ability instead. Unequipping removes the Ability.

No static bonuses. All mechanical effects expressed through the Ability framework.

What you gain: - Unifies mechanical language across Equipment and Abilities. - Reduces stacking math. - Increases modularity and clarity.

What you lose: - The "passive enhancement" feel of traditional equipment bonuses. - Some build patterns that rely on additive equipment math.

Use when: Building a system where Equipment should feel like character expansions rather than stat boosts.

Minimalist Gear Alternative

Core change: Remove weapon and armor statistics entirely. Damage derives from Attributes; Defense derives from Attributes and Abilities. Equipment provides only narrative tags.

What you gain: - Removes gear math complexity. - Emphasizes character over equipment.

What you lose: - Equipment as a meaningful mechanical layer. - Tactical decisions tied to gear loadouts.

Use when: Building a rules-light or character-focused system where equipment should be entirely descriptive.

A Note to System Designers

Equipment in *Frontiers* is deliberately spare. The engine defines Levels, Reference Level interaction, three States, Competency hooks, and the Ability-granting bridge. That's it. No item lists, no inventory rules, no durability, no slot architecture.

This is not laziness. It's commitment to the principle that equipment is the most genre-specific layer of any TTRPG. A fantasy system needs swords and spellbooks. A sci-fi system needs blasters and cybernetics. A modern intrigue system needs surveillance gear and concealable weapons. Forcing one item framework on all of them would constrain the engine in exactly the wrong place.

A system that adopts *Frontiers'* defaults inherits a particular feel: - One math rule for Equipment, shared with Abilities (Reference Level) - Three States that determine Energy interaction shape -

Enhanced/non-enhanced as a clean vocabulary distinction - Universal Ability framework for items that grant Abilities - No engine-level inventory pressure (systems add their own)

This feel is deliberate and tuned.

Modifying the defaults with a Variant or an Alternative changes that feel. Adding strict slots, mandatory carrying capacity, or item durability shifts the tone toward survival or tactical play. Removing Level interaction shifts toward narrative play. Each direction is valid; each produces a different system at the table.

Like everything in Frontiers, you are open as a designer to massively modify what Frontiers offers in favor of a method that works best for your system. This document is just giving you the tools and concepts Frontiers considered when deciding its own default engine rules.

For the engine's broader design philosophy, modularity, the Variant and Alternative convention, and how to build on Frontiers, see **Designing With Frontiers**.

For the condensed working ruleset, see the **Frontiers Overview**.