This document is part of the **Frontiers Design Documentation**, a set written to teach rather than to instruct. Each entry takes one subsystem, explains what that subsystem is in the wider language of tabletop design, surveys how games have solved it, and then shows what Frontiers does as one worked answer among many.

It is written for several readers at once:

- Designers using Frontiers who want to understand why it works the way it does.
- Designers using Frontiers who want to change it, and need to know what a change will cost.
- Designers building something else entirely, who want the design space mapped before they choose.

Frontiers is a toolkit, and a toolkit is only useful if you can see what each tool is for. None of this is a rule; the rules live in the Rulesets, and what follows is the reasoning, the history, and the alternatives.

There will be terminology here that is unfamiliar to casual players. Treat this documentation as advanced content, written for designers interested in building. It will not teach you every term or phrase it uses, but it will do its best to define them as they arrive.

What is Equipment

Let me be upfront: this is the boring one.

Equipment is the least glamorous subsystem a game has, and there is no use pretending otherwise. Abilities get the flaming swords and the reality-bending spells. Equipment gets the backpack, the rope, the question of whether your armor counts against your carry limit. A lot of designers who love building abilities dread building gear, even though, underneath, the two are the same idea: a thing a character has that changes what they can do. Equipment is just held to a lower creative ceiling, because most of it is standard by nature. A sword is a sword.

I think equipment can be more interesting than it usually is, though it has to stop being painful first, and that is where most systems lose the thread.

An equipment system is really answering one question: **how much of a character's gear does the game make you track, and how?** Everything else, weight, slots, states, ammunition, follows from where a system draws that line.

To see the failure mode clearly, look at encumbrance, the most-disliked subsystem in the hobby. The trouble almost never comes from a game tracking gear; it comes from games track it at the wrong grain.

A system will get most of the way to something clean, and then, for no real payoff, reintroduce a fiddly distinction: this item is light and that one is bulky, this armor weighs seventy-five pounds and

that one sixty. Now a player is doing arithmetic to answer a question nobody at the table actually cares about. The information is real, but it is not worth what it costs to maintain.

So the design tension in equipment comes down to **which details earn their tracking** rather than to depth against simplicity. A good equipment system tracks the things that change decisions and waves away the things that do not.

Three questions decide the shape:

1. **What counts as trackable gear at all?** Whether everything a character carries is inventory, or only the things that matter.
2. **How is quantity limited?** By weight, by slots, by nothing, or by some abstraction in between.
3. **What states can a thing be in?** Whether the game distinguishes stowed from ready from in-use, or leaves that to the fiction.

Why it matters

Equipment is where a game decides how much bookkeeping it is willing to ask for, and that decision is felt every single session.

Track too little and gear stops mattering, since a character with no limits simply has whatever the moment calls for and equipment becomes set dressing. Track too much and gear becomes a chore: players avoid engaging with it, ignore the interesting choices buried in the arithmetic, and the whole subsystem turns into a tax on play.

The trap is that the second failure often passes for rigor. A weight-tracking system feels more serious than an abstract one, so designers reach for it, and then discover their table has stopped tracking it by the third session. Precision that nobody uses is not depth. It is friction wearing depth's clothes.

There is a quieter design point here too. Equipment is where a lot of an item's behavior lives, and a system that never defines the states an item can be in has nowhere clean to hang that behavior. A torch that can be lit, a wand mid-cast, a shield being raised: these are all an item doing something instead of merely being carried, and a game that cannot express the difference ends up handling it entirely in the fiction, which works right up until it needs a rule.

> Which of the things a character carries actually change what they decide, and which are just weight on a page?

The Approaches

Equipment has fewer genuinely distinct paradigms than most subsystems, because there are only so many ways to answer "how do you limit what a character carries." Nearly every system is a point on a single line, from tracking everything by weight to tracking nothing at all. A few landmarks on that line are worth knowing.

Track it by weight

The oldest approach, and the one most others are reacting to. Every item has a weight, a character has a carry limit derived from a strength stat, and encumbrance is the sum against the limit. The traditional 5e SRD lineage carries a version of this, usually as an optional rule most tables drop.

The appeal is fidelity, since weight is a real quantity and the system models something true about hauling a lot of gear. The cost is the one everyone knows: it asks for arithmetic nobody enjoys, over a question tables rarely care about, and the information it produces is almost never worth what it takes to maintain. Its own designers tend to bury it in the options, which tells you how load-bearing it really is.

Abstract it into slots

Replace weight with a count. A character has a number of slots, each item fills one or more, and you carry what fits. This is where much of modern design has landed, and Cairn is a clean reference: a character has ten slots, drawn from where things actually sit on the body, a backpack holding several, one per hand, a couple more for belt, chest, or head.

Slots keep the decision of whether to carry this or that while dropping the arithmetic, since you are only ever counting to ten. What you trade for it is abstraction: a slot is a fuzzy unit, so edge cases (is this bulky, do five small things count as one) get handled by GM ruling rather than a formula. Most tables find that a good trade, which is why the approach spread. The failure mode is reintroducing grain on top of it, tagging some items light and others heavy, at which point you have rebuilt the weight system you were trying to escape.

Track only the notable

Some systems track almost nothing, flagging only the items that would actually change play. Into the Odd is close to this: it barely mentions inventory, and the one limiter it defines is a Bulky tag, with a hard cap of how many bulky things a character can haul before it stops them. Ordinary gear is simply assumed.

It is fast and puts attention only where it matters, since the sole thing being tracked is the thing heavy enough to be a real decision. The cost is that it leans hard on the fiction and on GM judgement, and it works best in short, lethal games where a character's kit is small and every item is chosen. In a longer game with a growing hoard, "track only the notable" needs someone deciding what counts as notable, session after session.

Track nothing at all

At the far end, the layer disappears. A character has what makes sense for who they are, and the game never counts it. Narrative-forward systems in the Fate and Apocalypse World traditions

largely work this way: gear lives in the fiction, and a character produces the right tool if the story supports it, sometimes formalised through a trait or an aspect instead of a slot.

Nothing to track means nothing to dread, which suits games about people and situations rather than logistics. What it gives up is the resource decision entirely. If a character can always have what the moment needs, then equipment stops being a constraint and becomes flavour, which is the right call for some games and a hollow one for others.

There is a second axis running underneath all of this, and most systems handle it poorly: **the states an item can be in.** Tracking what a character has is separate from tracking whether it is packed, in hand, or in use, and many systems that carefully count inventory never say clearly whether a sword is sheathed or drawn, leaving it to the fiction.

That gap is invisible until an item's behavior depends on it, a torch that must be lit, a weapon that must be readied, and then the table is improvising a rule. Few systems treat item states as a first-class part of the equipment layer, which is one of the places Frontiers does something deliberate.

Running across the whole line is a single trade of **fidelity against friction**. More tracking models the world more faithfully and costs more attention, where less tracking frees the table and gives up the resource decision. Almost every equipment system is choosing a point on that line, and the honest question for a designer is not how realistic the system is, but how much of that realism the table will actually use before it stops being tracked.

What Frontiers Does

Now, with that overview to catch you up to speed, here is the approach Frontiers takes, and the reasoning that led there.

Frontiers tracks gear with two independent limiters and four states:

- A flat **10 Slots**, regardless of any Attribute. Most items take one; negligible items take none.
- **Equipped items cost 0 Slots**. What is in your hands or worn does not count against your carry limit.
- Every item sits in one of four states: **Stowed**, **Equipped**, **Active**, or **Removed**.
- Powerful items also carry a **held ϟ Energy drain**, which is a separate limiter from Slots.

Full rules live in the Rulesets; what follows is why the shape looks like this.

Slots, not weight, and a flat ten

Frontiers abstracts carry capacity into ten Slots and leaves weight out entirely. This is the fidelity-against-friction trade made deliberately: a slot count keeps the only decision that matters, whether to carry this or that, and drops the arithmetic nobody uses. You are counting to ten.

The ten is flat, with no scaling off ❖ Vigor, which is deliberate. Tying carry capacity to a strength stat is realistic and it is also a tax, because it makes one Attribute mandatory in practice for anyone who wants to carry their gear, and it turns encumbrance into another number to recompute when that stat changes.

A flat ten sidesteps all of it. Everyone carries the same amount, the limit never shifts, and the decision stays about what you bring rather than how strong you are. A designer who wants strength to matter here can add it back, but the engine does not assume it.

Equipped costs nothing

The load-bearing trick is that equipped items cost 0 Slots. What is in your hands or on your body does not eat into your carry limit.

That clears up the oldest annoyance in gear tracking, the character penalized for wearing their armor. Under a weight system, the plate on your body and the plate in your bag weigh the same, which is true and deeply unfun, because it means equipping your gear makes you more encumbered. Frontiers splits the two. Slots measure what you are hauling; the things you are actively wearing and wielding sit outside that count. The cost of a piece of equipped gear, if it has one, is not a slot at all. It is the held ϟ Energy it draws while online.

Two limiters, two jobs

A reader will ask why gear is limited twice, by Slots and by Energy. The answer is that the two measure different things.

SLOTS ARE BULK

They cap how much stuff a character is hauling around, mundane or magical, and almost everything takes one.

HELD ϟ ENERGY IS POWER

It caps how much potent gear a character can keep running at once, and only powerful items carry it. Its reasoning lives in the Abilities documentation, since it is the same resource that meters abilities, but the short version is that a strong item occupies you: it holds Energy for as long as it is online, and if its drain is more than your Capacity can hold, you cannot bring it up at all.

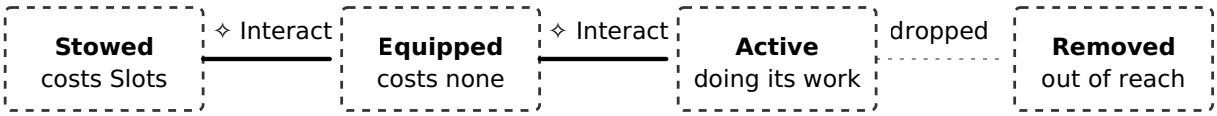
So a sack of ordinary tools is limited by Slots and costs no Energy. A single extraordinary weapon might cost no Slots while it is equipped and hold a large chunk of your Energy. One limiter caps quantity, the other caps potency, and a piece of gear can touch either, both, or neither. They are not redundant; they are two different questions about the same object.

Four states, so items can act

Most systems track what a character has and stay vague about what state it is in. Frontiers names four states, since an item's behavior hangs off them.

- **Stowed.** Packed away. The default for most gear, and the state that fills a Slot.
- **Equipped.** In hand or worn, ready to use, costing no Slots.
- **Active.** In use, doing the thing it does. A torch that is lit, a wand mid-cast, a device that is running.
- **Removed.** Set aside or gone, off the sheet.

The four item states, and what moves between them



Each step is the one handling action a Turn allows, so you get one of them.

The state that earns the system is **Active**, because it is what lets an item define its own actions. A torch is a clear example: stowed in your pack it is dead weight, equipped in your hand it is ready but doing nothing, and active it is burning, casting light, and consuming itself.

Active is also the state most easily forgotten in play, since nothing about it shows on a slot count. The Rulesets meter it the same way they meter everything else a hand does: going Active costs an ✧ Interact unless the item's own card says otherwise, so it competes with drawing and stowing for the single handling action a Turn allows. An item that should be faster than that says so on its card, and that exception is the interesting part.

Those give three genuinely different situations for play, and an item's abilities are written as transitions between them, lighting the torch, drawing and readying a weapon, powering a device down. Without named states, all of that lives in the fiction and works only until a rule needs to reference it. With them, an item can carry its own actions the same way a character carries abilities.

Handling, ammunition, and the rest

Two smaller choices follow the same logic of tracking only what changes decisions.

ALL ITEM HANDLING IS ONE ✧ INTERACT

Drawing, sheathing, stowing, retrieving, any manipulation of gear is a single ✧ Interact, and like every ✧ Free Action it may be used once per Turn. This collapses a dozen fiddly micro-actions into one clean rule. You get one handle a Turn and no more: a second is not something you can pay for, it simply does not happen unless a rule says otherwise. That is what a weapon card is doing when it lets you draw as part of the same ✦ Action, and it is friction enough to matter without tracking every reach into a pack.

AMMUNITION IS A POST-ENCOUNTER CONSUMABLE

Rather than counting individual rounds, ammunition is simply spent after an Encounter that used it heavily. Counting arrows is precisely the kind of bookkeeping that produces no interesting decisions, so the engine abstracts it to "you used a lot, now you are low." A designer running a survival game where every bolt counts can track rounds instead, but the default assumes nobody wants to.

Is this the best solution for Equipment?

Equipment is the boilerplate subsystem, and Frontiers treats it as one: clear, low-friction, and built to be expanded or ignored. The aim throughout was to track only what changes a decision, Slots for bulk, Energy for potency, states for behavior, and to wave away the rest, weight, round-by-round ammo, per-item handling, that costs attention without paying it back.

None of it is fixed. The flat ten, the equipped-is-free rule, the abstracted ammo are all defaults a designer can tighten toward realism or loosen toward abstraction. The structure is the opinion, and the opinion is that most equipment tracking is friction pretending to be depth.

There is a good chance you want a different balance of fidelity and friction. The final section below sets out variant and alternative rules you can use in their place, along with what each one changes and what it will cost you elsewhere.

Variants

Variants keep the philosophy intact. Slots for bulk, states for behavior, and only the decision-changing details tracked. What changes is where the dials sit. Mix as suits your game.

Tune carry capacity

The default is a flat ten Slots with equipped items free.

SCALE SLOTS OFF ❖ VIGOR

Tie carry capacity to the strength stat after all, for a game where being able to haul more is a real reward for investing in ❖ Vigor. It makes that Attribute more attractive and reintroduces a small recompute when it changes.

CHANGE THE COUNT

Fewer Slots for a lean, survival-pressured game where every item is a hard choice; more for a gear-rich game where a character is expected to carry a kit. Ten is a middle default. Raise or lower it to suit your genre.

CHARGE SLOTS FOR EQUIPPED GEAR

Drop the equipped-is-free rule and make worn and wielded items count too, for a grittier game where being fully armed is itself a load. Be aware this brings back the armor-penalty feel the default was built to avoid.

Tune the detail

The engine tracks bulk and waves away the fine grain. Both directions are open.

ADD ITEM WEIGHTS OR SIZES

Reintroduce a bulk tag, a two-slot heavy item, or light items that bundle several to a Slot. This adds fidelity, and it is exactly the grain the default cut, so add it only where the extra decision is worth the extra tracking.

COUNT AMMUNITION

Track rounds, charges, or bolts individually for a survival or gritty-military game where running dry is a live threat. More tension, more bookkeeping.

CHARGE EVERY HANDLING ACTION

Let a character handle gear more than once a Turn by paying ✦AP for each extra ✧ Interact, instead of the single free one. This loosens the hard limit into a purchasable one, for a tactical game where juggling equipment under fire is a real decision instead of a flat no.

Alternatives

Equipment has few true alternatives, because there are only so many ways to answer the underlying question. These replace the philosophy rather than tune it.

Track by weight

Swap Slots for a weight-and-capacity system in the traditional style: every item has a weight, carry limit derives from ❖ Vigor, and encumbrance is the sum against the limit.

This buys fidelity for a game that genuinely wants logistics to matter, a wilderness haul, a heist where every kilo counts. It costs the friction the whole subsystem was built to avoid, so choose it knowing the table has to actually use the precision for it to be worth the arithmetic. Nothing else in the engine breaks, since this is a self-contained swap, but the four states and the held-Energy limiter still sit on top and should be kept.

Track nothing

Remove inventory entirely and treat gear as fiction, in the narrative-forward style. A character has what suits them, and the game never counts it.

This suits a game about people and situations rather than logistics, and it deletes the most-dreaded subsystem outright. What it gives up is the resource decision: if a character always has the right tool, equipment stops constraining anything and becomes flavour. Note that removing Slots does not remove held ϟ Energy, which still governs how much potent gear a character can run, so even a no-inventory game keeps a soft limit on power unless you cut that too.

Drop the states

Keep Slots but remove the four-state model, handling packed-versus-drawn-versus-in-use purely in the fiction.

Simpler on paper, and fine for a game where items never have their own actions. The cost is the thing the states were there for: the moment an item needs to do something conditional, a torch to light, a device to power, you are back to improvising a rule. Drop the states only if your gear is inert, and expect to reinvent them the first time it is not.

Equipment is the safest subsystem to swap wholesale after Skills, since little else depends on its specifics, with one exception: held ϟ Energy ties gear to the ability economy. Any alternative that removes the way gear is limited should account for what happens to that link, or gear loses its throttle on raw power.