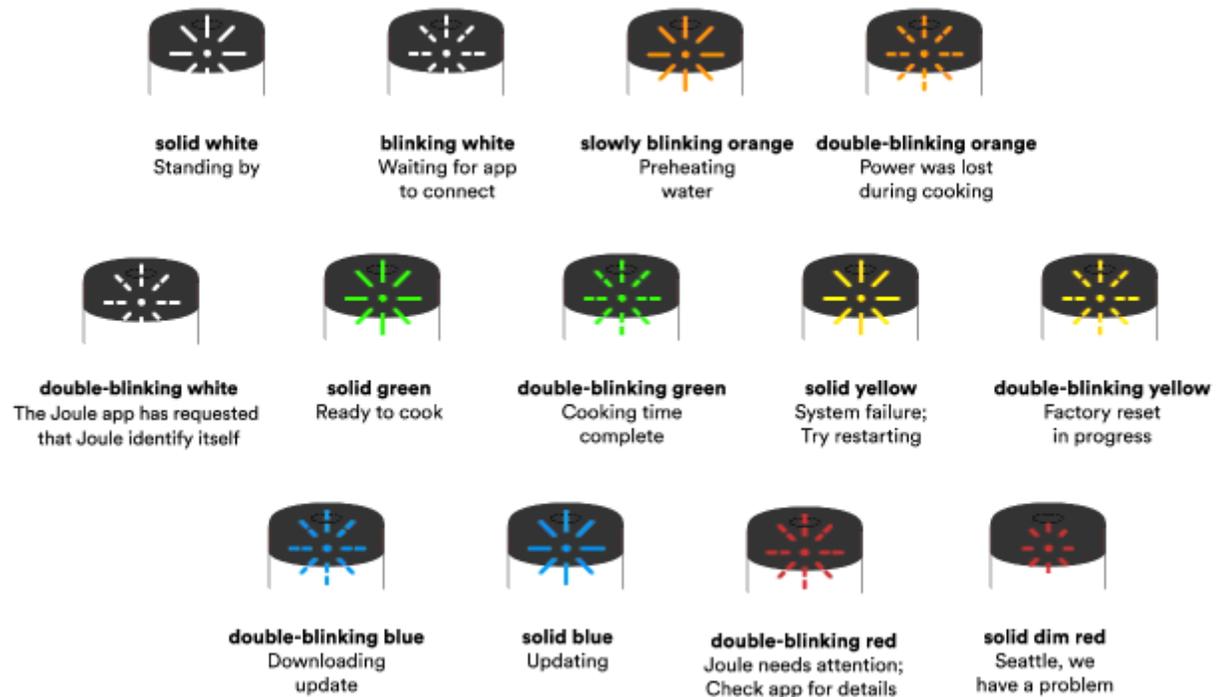


The LED (cute little light thingy) on my Joule is blinking! Why?

Joule’s LED communicates with you using a range of colors and states—kinda like the Christmas lights and Winona in *Stranger Things*. Here’s an overview.



Solid white light: Joule is in standby mode. If you’re already connected to Joule, this means that Joule is ready to start cooking.

Blinking white light: Joule is ready to pair. Press the top of Joule to continue.

Double-blinking white light: The Joule app has requested that Joule identify itself.

Slowly blinking, or “breathing,” orange light: Joule is heating to its set temperature.

Double-blinking orange light: Power was lost during cooking. If you unplug Joule while it is cooking, you may see this when you plug Joule in again.

Solid green light: Joule has reached the set temperature and is holding steady.

Double-blinking green light: A timer has completed its countdown. Your food is probably done!

Solid yellow light: A system failure has occurred. Try unplugging Joule and plugging it back in again.

Double-blinking yellow light: A factory reset is in progress.

Double-blinking blue light: A software update is downloading to Joule.

Solid blue light: A software update has been downloaded to Joule and is being installed. Give it a few minutes to finish, and you'll be back to cooking in no time.

Double-blinking red light: There is an issue with Joule. Check the Joule app for more information. Also, please check to make sure there is enough water and that Joule is standing upright. Joule may also have overheated, so make sure it is properly ventilated.

Solid red light: There is a Joule software error. The device should reset itself in this case. If it does not, attempt to reset Joule by unplugging it for 10 seconds and then plugging it back in.

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What kind of heating element does Joule use?

Joule delivers 1100 watts of heating power from a unique, compact heater invented by ChefSteps using thick film technology that operates at 99.8 percent energy efficiency for the fastest preheating times on the market.

What are Joule's dimensions, and how much does Joule weigh?

At 11.0 inches (280 mm) in height and 1.85 inches (47 mm) in diameter and weighing just over a pound, Joule is the smallest, most powerful consumer sous vide device available. Joule fits easily into a kitchen drawer or cabinet and can be used with almost any standard pot or pan you already have in your kitchen

What is Joule made of?

The metal components of Joule are made from surgical-grade stainless steel. All plastic materials are FDA-certified food-safe plastic.

How do I update Joule?

Typically, if there is an update, the Joule app will notify you and walk you through the process. You can also look for an update by going to “Settings” > “My Joules” > [Joule's Name] > “Update Joule’s Software.” Updates will take a few minutes, so go make a cocktail while your app makes Joule even better.

A few tips:

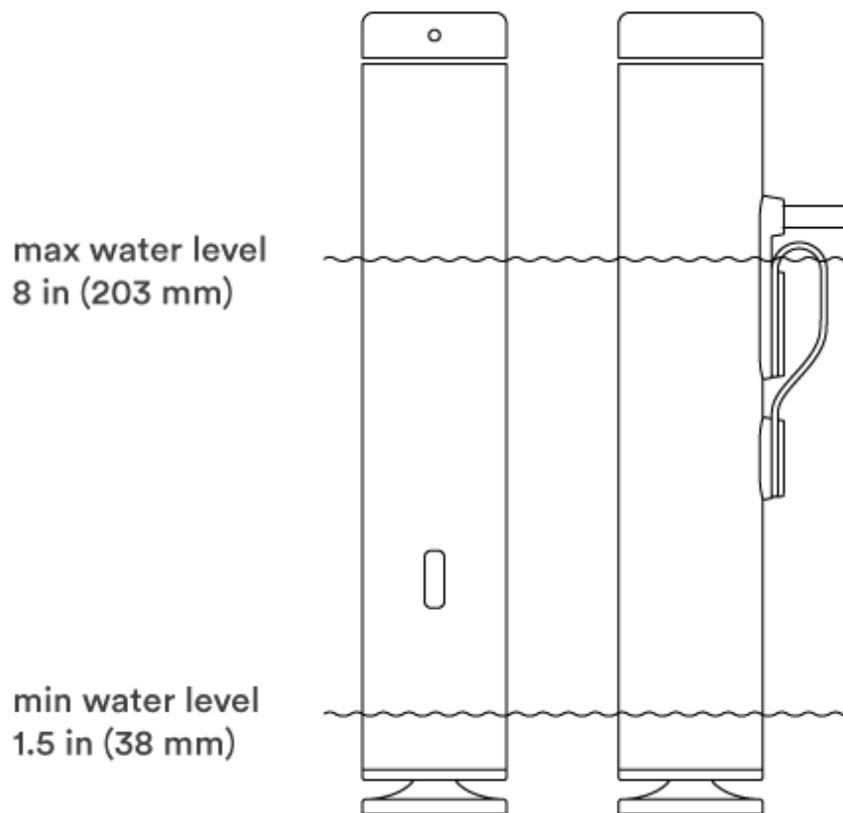
- Make sure Joule is connected to WiFi and plugged in within 10 feet of your wireless router.
- Keep your phone or tablet close to Joule until the update is complete.
- Keep the app open until the update is complete. And no backgrounding it either! (Nice try, though.)

What are the minimum and maximum water depths for Joule, and how much water can Joule heat?

Minimum water depth
1.5 in (38 mm)

Maximum water depth
8 in (203 mm)

In a well-insulated, covered container—a cooler, say—Joule can heat up to 10 gallons (40 liters) of water. In a covered pot, it can heat about 5 gallons (20 liters). When you’re cooking without a cover, we generally recommend limiting water volume to about 2.5 gallons (10 liters).



However, you can always use the clip to attach Joule to the rim of your container and increase the maximum water level, as demonstrated in the photo below.



What is the maximum temperature Joule will reach?

Joule's maximum operating temperature at sea level is 208 °F / 98 °C. At any other altitude, the max operating temperature is 3.6 °F / 2 °C below the local boiling point.

If you've ever been up in the mountains trying to cook something, you might have noticed that the boiling point up there was lower—this is because reduced air pressure at higher altitudes lowers boiling point. In pursuit of the best possible experience for all our customers, we chose not to set a one-size-fits-all max temperature. Instead, we added a pressure sensor that determines local air pressure and in turn automatically calculates the local boiling point to determine max temperature for each individual Joule, no matter the altitude.

What is a factory reset, and how do I perform one?

A factory reset restores Joule to its original settings, erasing your device's name, WiFi settings, and authentication information. If you are giving your Joule away to someone else or placing it in the witness protection program, you probably want to perform one of these.

Here's how you do it:

1. Plug in Joule. (If Joule is already plugged in, unplug it and then plug it in again.)
2. Immediately press the top button and hold it for eight seconds, until the light begins blinking yellow.
3. Once the light becomes steady and white, the factory reset is complete.
4. Pair with Joule again.

How do I operate Joule?

Once Joule is plugged in, you can control and monitor it from almost anywhere using your phone or tablet and the Joule app. Once set, Joule will continue to safely operate unattended. The app will allow you to [set cook temperatures](#) and times, and to check in on your food no matter where you are (as long as Joule is connected to WiFi). If you want more guidance, the app has recipes, guides, and Visual Doneness, so you don't have to know what temperature to set or how long something needs to cook to get your dish cooked perfectly to your preferred doneness. You can turn Joule off with the app or by pressing the button on top of Joule and holding it down for one second.

Why do the lights in my house flicker when I cook with Joule?

Depending on your home wiring, you may experience flickering lights while using Joule. To maintain the precise temperature needed to cook sous vide, Joule's heater power cycles many times a second; think of a microwave's defrost cycle or a refrigerator compressor turning on and off. If your lights flicker while you're cooking with Joule, it's because the heater is cycling on and off.

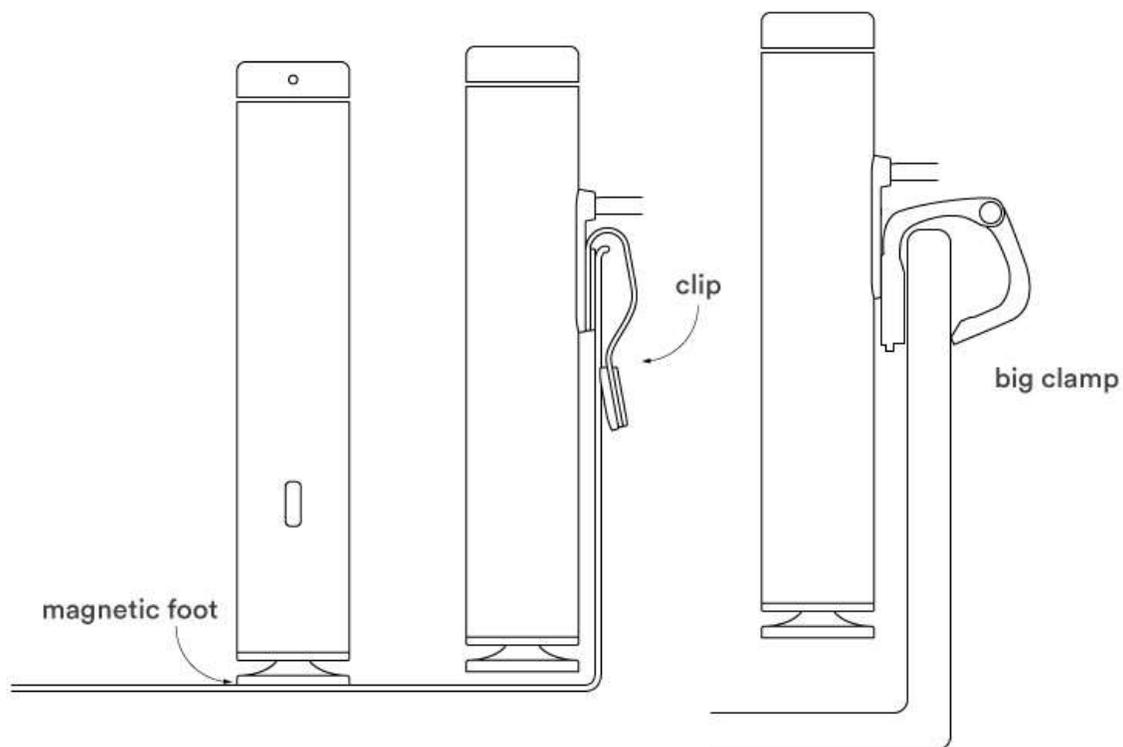
Here are a few ways you may be able to reduce flickering:

- Using Joule on the same circuit as the light bulbs can lead to flickering. (If you don't know whether this is the case, see whether flipping the breaker for the lights also turns off any appliances on the outlet you're using for Joule.) Most modern wiring actually puts the lights on a separate circuit from high-power-draw appliances to avoid these kinds of issues. To reduce flickering, you can try moving Joule to an outlet on a different circuit.

- The type of light bulbs you're using can also cause flickering. High-wattage bulbs such as incandescents are more sensitive to high-power-draw devices like your microwave, refrigerator, or Joule. Lower-wattage LED bulbs seem to hold up much better to the large initial power draw of Joule's (or any sous vide device's) heater.
- There is also a small chance that your home electrical service isn't receiving enough power from the power company's transformer. If the lights in your entire house dim while you're using Joule, it may be useful to have the power company come out and test their equipment.

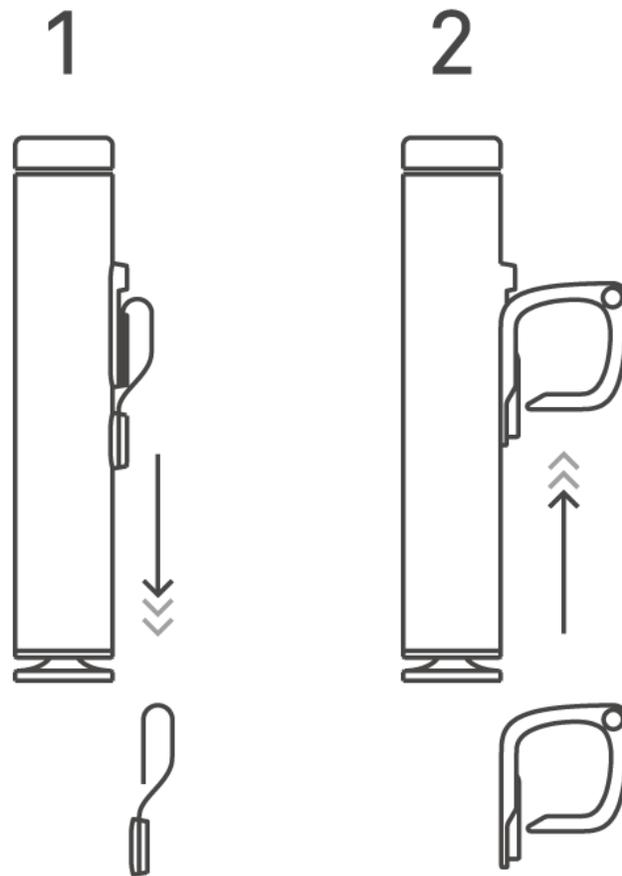
How does Joule attach to a pot or container?

Joule is equipped with an industrial-grade base magnet, so you can quickly and securely affix it to most magnetic steel pots or induction-ready cookware. However, it has an easy-to-use, universal clip (included with initial Joule purchase) or Big Clamp (available for purchase [here](#)) for just about any other type of container you want to use it with, such as your trusty Cambro.



How to change the clip

To remove Joule's normal clip and swap in the Big Clamp, simply pull downward on the wire clip until it slides off. Next, slide the Big Clamp up into place until it clicks, and get cooking!



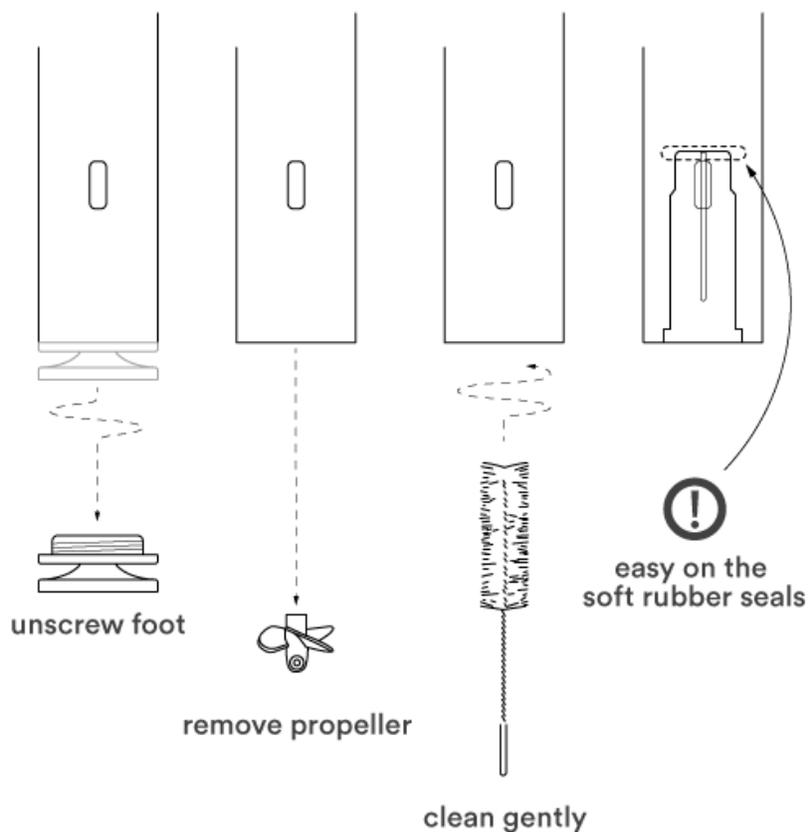
How do I store Joule?

When you're done cooking with Joule, we recommend using the app to stop Joule and unplugging the device before storing. We also recommend letting Joule cool down before handling, as the lower portion of the device will be quite hot after cooking, and you may risk burning yourself if you handle Joule too soon after the cook is completed.

With its sleek shape and small size, Joule will easily fit in any standard kitchen drawer or cupboard, and Joule's power cord is designed to wrap around the tool. But hey, we think Joule is pretty enough to display proudly on your kitchen counter too!

How do I clean Joule?

- Thanks to Joule's seamless design, in most cases you can simply clean it with a damp cloth or sponge and then wipe dry.
- Do not put Joule in the dishwasher, and do not submerge Joule in water.
- To keep Joule running smoothly over the long haul, we suggest cleaning it periodically in a vinegar bath. Bath time rules: Pour equal parts water and distilled white vinegar into a small pot. Add Joule, [use manual mode to set the temperature](#) to 140F °F / 60 °C, and allow Joule to heat the liquid. When Joule alerts you that it has reached that temperature, the cleaning is complete. If you have hard water, cleaning with vinegar is an important way to remove buildup inside Joule, which can result in a whistling sound and/or slow heating times. If Joule starts whistling or heating times seem longer than usual, this may be a sign that your sous vide tool is in need of a bath.
- To clean the inside of Joule, take off the metal foot of the device by twisting it counterclockwise, remove the propeller, and then use a wet sponge or bottle brush to gently wipe out the inside. If food has become cooked onto the heater, use a nylon or brass brush to clean the interior, but go easy on the soft rubber seals at the top of the heating cavity.



Can I use Joule to cook sous vide in anything besides water (like beer or chicken broth)?

We do not recommend using Joule with anything other than water. Joule is designed to work only in water. Using Joule in fluids other than water will void your warranty and likely decrease your Joule's lifespan or damage it permanently.

What is a factory reset, and how do I perform one?

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Do I need to protect my countertop/work surface while cooking with Joule?

You can cook sous vide in a pot on any surface—no need to use precious stovetop space. Remember, however, that when you are cooking with Joule, the water in your pot will get hot enough to heat your food—so treat your work surface accordingly. Because countertops vary widely, we suggest you protect your work surface by placing a [trivet](#) underneath the pot every time you cook and using whatever further precautions you would when exposing your counter to

a dish, pot, or pan you just removed from the oven or stove. While we suggest taking this precaution every time you cook, it's especially important to protect work surfaces when you are cooking for a long time or at higher temperatures.

How many pieces of meat or fish can I cook at once? And how do I know if my bag or bath is too crowded?

You can cook multiple chicken breasts, steaks, or pieces of salmon at one time. The amount you'll be able to cook largely depends on the vessel you're using. In a well-insulated, covered container—a cooler, say—your little Joule can heat up to 10 gallons (40 liters) of water. In a covered pot, it can heat about 5 gallons (20 liters). When you're cooking without a cover, we generally recommend limiting water volume to about 2.5 gallons (10 liters).

The number of items you're cooking will not increase cook time as long as the pieces are all separate (not necessarily in separate bags, but in bags that aren't too crowded). Make sure the pieces of food have plenty of room to move around in the bag—if it's jam packed, it's too crowded. You want each piece of food to cook evenly in the surrounding water; if it's packed tightly in the bag, food will cook unevenly. Same goes for the pot—leave enough room for water to circulate all around the food you're cooking. If there are lots of bags jammed together, the water can't do its job.

Do I need to get a special kind of pot or pan to cook with Joule?

Joule will work with almost any kitchen pot or pan. In fact, you can use Joule in your kitchen sink or in a cooler at a tailgate—anywhere you have access to a standard power outlet. We *do* love the way Joule's magnetic foot clicks firmly into place in a magnetic steel pot or induction-ready cookware. However, it has an easy-to-use, universal clip for just about any other type of container you want to use it with, and we'll also have bigger clips available for purchase, y'know, in case you want to cook in the bathtub.

And, you can cook *sous vide* in a pot on any surface—no need to use precious stovetop space. Remember, however, that when you are cooking with Joule, the water in your pot will get hot enough to heat your food—so treat your work surface accordingly. Because countertop materials vary widely, we suggest you protect your work surface by placing a [trivet](#) or potholder underneath the pot or container every time you cook. Use whatever precautions you would when exposing your counter to a dish, pot, or pan you just removed from the oven or stove.

What is *sous vide*, why should I want to cook *sous vide*, and what foods can I cook *sous vide*?

Imagine you're cooking a piece of steak. You probably know exactly the color and texture—the doneness, in other words—you'd like, right? With *sous vide* (say “sue veed”), you can get that perfect doneness every time: simply bag your food, drop it in a pot of water, and set your *sous vide* tool to the time and temperature that correspond to the doneness you desire.

Sous vide has been gaining popularity recently with home cooks, but it's been used by professional chefs and restaurants for decades. It's a relatively simple method that can easily be used at home to improve your favorite meals, remove unnecessary stress from cooking, or free you from focusing on one aspect of your meal—like getting your steak to the doneness you desire without overcooking—so you can focus on a creative side dish or sauce. Once you're certifiably obsessed with sous vide, there are tons of amazing things you can make with it, from carnitas to perfect crème brûlée, fried chicken to smoky ribs.

Sous vide recipes you find online tend to focus on steak and fish—two excellent options—but when it comes to cooking in water, proteins are just the beginning. We use sous vide for veggies, sides, desserts, and even homemade yogurt. [Here are 17 fresh ideas you can try tonight](#). Hungry for more? Awesome. We've got hundreds of amazing, well-tested recipes on our website.

Is sous vide safe?

We believe not only that cooking sous vide is safe, but also that it may reduce the risk of errors often associated with foodborne illness, such as mishandling food or not allowing it to reach the recommended internal temperature. That said, we recognize that cooking food in plastic is concerning to some people. We totally get it—there have been some alarming reports about heating some types of plastic, and the studies, which sometimes conflict with one another, are also often oversimplified in the news. While we cannot predict what may be discovered in the future, we can assure you that we read the research closely, we understand the science, and we believe the risk involved in cooking food at low temperatures in high-quality plastic bags is extremely small. If we didn't believe that, we wouldn't encourage you to use them and we wouldn't use them ourselves when cooking for our families and friends. Want to learn more? Check out our [complete guide to sous vide safety and sustainability](#).

Do I need a vacuum sealer to cook sous vide?

“Sous vide” is French for “under vacuum,” but it's a very confusing name. In fact, you do not need a pricey vacuum sealer—or even an inexpensive countertop one—to successfully cook food at a low temperature in a water bath. To get started with sous vide, regular old ziplock-style bags will do just fine. In fact, for some applications they are preferable to vacuum-sealed bags. You can also use high-grade bags intended for vacuum sealers but not seal them. For more information, check out our [complete guide to sous vide packaging](#).

However, when you cook vegetables with Joule, we strongly recommend using a vacuum sealer. This is the only way to guarantee the fantastic results that make sous vide vegetables the best you will ever try. Properly cooked, vacuum-sealed veggies will also be fully pasteurized, so you can store them in the fridge for weeks at a time or freeze them without fear of freezer burn. But this doesn't mean you need to invest in pricey equipment. We [recommend sealers](#) that range in price and will all work wonderfully. Once you get one, you'll find its uses extend beyond Joule—sealers are great for keeping snacks and other foods fresh longer. To see how they work, head to the Vegetables section of the Joule app, and get excited to EAT MORE VEGGIES!