EMERGENCY POWER

HOW TO BUILD YOUR OWN:

* SOLAR HEATER
* SOLAR COOKER
* SOLAR POWER
* AND MORE...

ELECTRICITY WHEN YOU NEED IT MOST

Table of Contents

Copyright

Mission

This book is dedicated to the health, well-being and longevity of all, as all is one.

To achieve this, we must all be vigilant to the health and wellness of those around us, and protect ourselves from dangerous and deadly viruses, disease and illness. With education and support, many contagious and scary viruses can be prevented from bringing us harm and even be eliminated.

History has shown us the scourge of common illnesses and diseases and the potential loss these have on humanity, from bubonic plague, influenza, to Ebola, SARS and MERS, there's risk all around us at every corner, and the next big virus could be ever present and even more dangerous and deadly. Actually, it's already here.

Remember, the top priority for the government is to keep citizens calm in times of pandemic crisis, and the role of health care workers is to treat these viruses when they already strike and begin spreading in populations. But in the case of a pandemic, the system becomes completely overwhelmed and we cannot rely solely on these institutions to keep us safe – we need to be ready to act.

Ask yourselves – what good is it if you get to the hospital only to find out that you've already contracted a serious virus that cannot be cured?

That's why we are committed to going above and beyond and ensuring that you have access to the information and tools you need to help you prevent contraction of serious

viruses and illness and deal with the potential needs for quarantine, treatment and the like so you have the power in your hands to help yourself and your family!

Knowing what to do, and how to prepare for a serious viral outbreak is the key to being ready to handle the potential risky outcomes. And we're here to help.

As such, some of the royalties from the sale of this book are being used to help fund the mission of educating people about virus prevention and protection, to help spread of harmful and deadly viruses and pandemics.

Pandemic Survival is designed to give you the information you need to not only prevent contraction of this serious virus, but to take charge of your health.

Once you've gotten this vital information that could save your life, I ask you to join my mission by sharing your positive experience with friends and family, so they know there is a way to prevent and protect yourself and those you love so much.

Clayton Mathews

The Fine Print

There's always a legal disclaimer, isn't there? We live in a funny world where everyone is intent on covering their butts whenever they provide information or opinions. I hate having to do this, but it is a necessity, so here goes:

By reading and using Emergency Power Book, or the Pandemic Survival website, you agree to all terms of engagement, thus assuming complete responsibility for your own actions. The creators, developers, publishers, and sellers will not be held liable, nor will they claim accountability for any personal damages, loss or injuries. You view and interact with these resources at your own risk.

All products from Pandemic Survival, its related brands, and affiliated companies are strictly for informational purposes only. While all attempts have been made to verify the accuracy of all information provided on our website and within the publications, circumstances and materials, known and unknown, existing or otherwise, are unforeseeable to Pandemic Surival, and as a result are beyond the control of its creators, owners, employees and shareholders. Neither the authors nor the publishers can assume responsibility or liability for possible inaccuracies including, but not limited to errors or omissions. Loss of property, injury to oneself or others, and even death could occur as a direct, or indirect consequence of the use and application of any content found herein.

Working with renewable energy sources can be dangerous. Since you are dealing with high roof tops and numerous other unknown conditions, seek qualified opinions and

help when necessary. The authors and publishers assume that, while carrying out this project, you are aware of all the possible risks associated with home improvements, renewable energy and energy-related projects in general.

Check with your town, city, state, province, county or country for applicable laws, and/or bylaws regarding home improvements and alterations as it is customary for necessary documentation to be required for such projects in most areas, prior to the beginning of construction. Ultimately, you are responsible for learning what local government permits and licenses are usually necessary to prevent legal implications in your area.

The information provided may need to be downloaded using third-party software (such as Acrobat or Flash Player) and it is the user's responsibility to install the software necessary to view such information. Any downloads, whether purchased or given for free from our website, related websites, or hosting systems, are done at the user's own risk. No warranty is given that websites are free of corrupting computer codes, viruses or worms.

If you are a minor, you can use this service only with permission and guidance from your parents or guardians. Children are not eligible to use our services unsupervised. Furthermore, this website specifically denies access to any individual covered by the Child Online Privacy Act (COPA) of 1998.

Safety Information

Cautions

- Avoid electrical hazards when installing, wiring, operating and maintaining any of the projects provided in this book.
- It is recommended that the components for your projects remain packed in the box until time of installation in order to avoid accidental damage.
- Never leave your products unsupported or unsecured.
- Work only under dry conditions, with dry materials and tools.
- Do not stand or step on your projects.
- If not otherwise specified, it is recommended that requirements of the latest local, national or regional electric codes be followed.
- Use your projects for their intended function only.
- Do not artificially concentrate heat or artificially generated hot air on your projects.

Warning

All instructions should be read and understood before attempting to install, wire, operate and maintain any of these projects.

Power Tool Safety

Power tools make work faster and let you complete projects much more easily. With that convenience, however, comes many safety concerns. Blades rotating at very high

speeds, the presence of electricity and the sheer power of some of these tools make them very dangerous. Special care should be taken when operating power tools.

Safety Apparel

Safety goggles or a safety mask should be worn while operating power tools. Shards of metal or wood can dislodge at high speed and do irreparable damage to eyes or the soft tissue of the face. Safety footwear can provide some protection against electric shock and can also protect toes if heavy items are dropped.

Guards and Safety Switches

According to the Occupational Safety and Health Administration, guards should be installed on power tools to protect the user from exposed moving parts. A safety guard should never be removed while a tool is in operation.

Many kinds of saws and drills have a safety control that shuts the power off to the tool when pressure is released. This way, if a tool is dropped during operation, it automatically shuts off and cannot cause damage to the user or surroundings as it falls.

Electricity

Power tools should be plugged into a grounded receptacle. Electric shock is a hazard to be avoided since it can easily be fatal. Never use tools in or around water unless they are double-insulated. Store tools in a dry place and maintain them properly. Replace frayed or worn cords on power tools.

Pneumatic Tools

These tools are powered by compressed air and can be very dangerous without proper caution. Before using, make sure that tools are secure on the air hose so that they don't fly off when operating. Pay close attention when using these powerful tools and maintain a safe distance from people who are operating them. Eye protection is a must, and screens can also be helpful to protect bystanders or other workers. Do not ever point a pneumatic tool at a person or animal.

Workshop Safety

Keep your work area well-lit and free of debris. Properly maintain tools and replace worn parts. Insist that everyone who uses power tools wear safety equipment. Do not operate power tools while distracted or under the influence of drugs or alcohol. Respect the strength of these tools and use common sense while working.

Power Outage Preparedness

When disaster strikes, the last thing you want to be doing is figuring out how you're going to manage without power until rescue crews arrive. It's very important that you prepare ahead of time, so you're not forced to scramble at the last minute. Remember, most people can't think as clearly as they normally can in the middle of an emergency. Don't put yourself in a position where you may forget or be unable to locate something that's crucial to your family's survival!

Before you begin writing up your emergency preparedness plan, you'll need to identify the most likely potential disasters in your area. While you should always be prepared for every eventuality, you should focus your efforts on those that occur most often where you live. Include these possibilities, and your specific plans for handling them, in your emergency plan.

Your first step should be to hazard-proof your home and property. Look for fire hazards, including anything that could become a fire hazard if tipped over or dropped, as well as large or heavy objects that could fall or be blown away and cause injuries. Part of this is making sure that all your smoke, fire and carbon monoxide detectors are in working order with charged batteries. Check these frequently and follow the guidelines in your area when replacing and testing them.

Prepare a list of emergency contact phone numbers and addresses. Even when the power is out, most of the time phone lines are still up and working. Include family members and friends who will need to know that you're okay, as well as people you can rely on to provide shelter or look after any pets if needed. Make sure at least one person on your list is far enough away that a natural disaster affecting your area won't also be affecting theirs.

Remember, though, that in an emergency, you should try to limit phone use to only what is necessary. Emergency and rescue crews will need all available lines, and it's likely that many will be down or damaged already.

Make sure all family members (even children) are made familiar with the hazards you may face, as well as the emergency contact numbers. If you have children who are afraid of the dark, make sure they are prepared to deal with power outages and practice at night with the lights off to help them be more comfortable with the experience. Ideally, the whole family should be involved in the development of your emergency plan – at the very least, go over it with each person individually when it's finished to make sure everyone is on the same page.

Making A Plan

The first two parts of your plan should already be complete – your lists of emergency contacts and potential emergency situations specific to your area. Next, think specifically about your home and property.

Know the best emergency exits from your house or building, as well as several alternate routes. Make a list of hazards you can't eliminate but will need to avoid, both in your home and on the surrounding property. Know where and how to turn off the water, gas and electricity in your house if it's necessary. You'll also need to designate a spot outside as a meeting place in case your home must be evacuated. Once you've familiarized yourself and your family with the issues immediately surrounding your home, think about your neighborhood or community. Know what the warning channels are in your area – Radio? Television? – And check them frequently. Determine what the best evacuation and escape routes are if you need to leave your neighborhood or city quickly. Make sure you include several alternate routes.

You should also designate a second meeting place outside your immediate area where your family can meet if your neighborhood becomes unsafe. If you haven't already, make sure everyone in your family has a cell phone and knows how to use it! Put all these things in writing and make sure your family is familiar with them and knows where they can find copies of the plan in the event of an emergency. Put a copy of your emergency preparedness plan in a waterproof container inside your emergency kit and make sure the kit is in an easily accessible place in your house or garage.

Preparing a Kit

You can use the handy checklist below to help put together your emergency kit. Keep in mind that you may have different or additional needs in your specific geographic location – do your research and make sure you have everything you will need!

You will also need to find a container to keep your kit in. Something like a duffel bag or a suitcase works well, or you can split it into separate backpacks for each family member so everyone can help carry supplies in the event of evacuation.

Documents, Papers, and Important Items

These should be stored in a waterproof container inside your kit.

□ List of emergency contacts

□ Copy of your emergency plan

□ Local maps

□ Blank paper and pencils

□ Personal and family documents: passports, social security cards, identification papers, immunization records, birth certificates, etc.

□ Copies of insurance policies, bank account/credit card numbers

□ HELP / OK signs

□ Medications (both prescription and over-the-counter)

□ Spare house and car keys

□ Cash (include plenty of smaller bills and change for payphones)

□ Important or meaningful personal items (photographs, heirlooms, etc.)

Water

Keep water in sealed plastic bottles. Make sure you include several smaller bottles for easy carrying.

□ 1 gallon of water per person per day (at least three days-worth)

□ Water purification tablets, if available

Food and Food Preparation

Pack only hermetically sealed, unopened packages of food, and throw out anything that spoils or passes its expiry date. You should have at least three days-worth of food per person. Be sure to review the food safety section of this book, as well.

□ Canned meats, fruits and vegetables

□ Energy bars, granola bars, etc.

□ Crackers, biscuits and cookies

□ Dried fruit and nuts

□ Can opener and bottle opener

□ Plates, bowls, cups, knives, forks, spoons

□ Camping stove and fuel

□ Solar cooker (see instructions at the end of this book)

□ Water distiller (see instructions at the end of this book)

Tools and Supplies

□ Flashlight and extra batteries (tape the ends to prevent loss of charge)

□ Candles, lighter and waterproof matches

□ Battery-powered or wind-up radio and spare batteries

□ Basic toolkit (hammer, pliers, screwdrivers, wrench, pocket knife, gloves)

□ Garbage bags (they make great ponchos!)

□ Duct tape

□ Whistle

□ Fire extinguisher

□ Compass

□ Flares and flare gun

□ Bleach

□ Tarp

□ Spare cell phone battery and charger

□ Portable solar panel (see instructions at the end of this book)

□ Pocket lanterns (see instructions at the end of this book)

□ Fuel (kerosene, paraffin, etc.)

Personal Items

□ First Aid kits

□ At least one change of clothing per person

□ Gloves, hats and scarves

□ Blankets and/or sleeping bags (at least one per person)

□ Hand sanitizer

□ Toilet paper

□ Toiletries (soap, shampoo, toothbrush, toothpaste, razors, etc.)

□ Feminine hygiene products

In The Car

Keep a smaller kit in the trunk of your car.

□ Additional food and water supplies

□ Extra flashlight and batteries

□ Candle and waterproof matches or lighter

□ First Aid kit

□ Warm clothing, including hats and gloves

□ Blankets or sleeping bags

□ Shovel, ice scraper and snow brush

□ Sand, salt or non-clumping kitty litter

□ Antifreeze

□ Tow rope

□ Jumper Cables

□ Fire extinguisher

Food And Water Safety

In the event of a power outage, it's easy to forget about food and water safety, but this really is one of the most important things to remember. The last thing you want to be worrying about in that sort of situation is food poisoning!

First, you should only eat or drink food and water that has been stored in an hermetically sealed, unopened container that doesn't need to be refrigerated. Canned foods, plastic water bottles, juice boxes and individually wrapped snacks are all good examples of this.

Before opening any food or water container that may have been contaminated, the outside should be washed with a mild bleach and water solution and allowed to air dry (preferably in the sun). The same goes for any food preparation surfaces or tools, and all plates, bowls, cups and utensils.

Keep frozen foods frozen as long as possible, and don't open the freezer unless you absolutely must. As soon as something has become warmer than normal refrigerator temperature, it must either be thrown out or cooked immediately. If you have any doubts as to whether a food item is spoiled or not, throw it out. Better safe than sorry!

If you've exhausted your water supplies and need to drink unsealed water, make sure you take appropriate measures. You can use water purification tablets if you have them, making sure to follow the instructions carefully. If you've run out or couldn't find any,

you will need to boil the water for at least 10 minutes before drinking it. A water distiller can also be used if you don't have a way to boil water, or, even better, you can first distill and then boil it prior to drinking.

Building A Solar Water Distiller

What You Need

- 2L plastic bottle
- Knife or scissors
- Lighter
- Black cloth or small black container

How To Build It

First, cut your soda bottle in half using your knife or scissors. Set aside the bottom half for now, keeping the top half with the cap on.

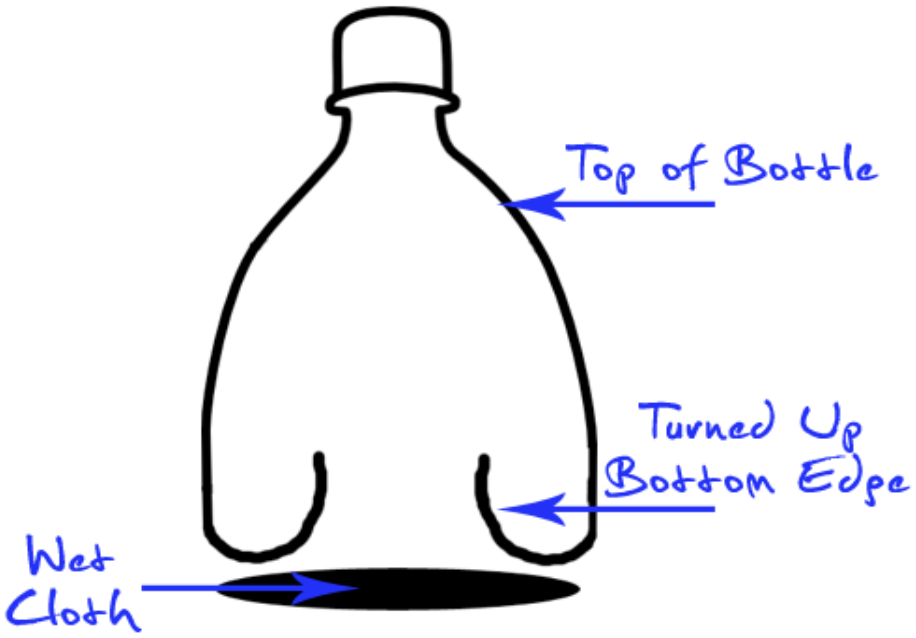
Use your lighter to heat up the bottom edge (the edge where you made your cut) of the top half of the bottle. Carefully and gently, bend back about 2 inches of plastic so you form a channel around the inside of the bottle. This is where the water will be collected.

Wet the black cloth with the water you need to distill. Alternately, you can put the water inside a small, open-topped container painted black and use that instead.

Put your distiller over top of your cloth or container, set it out in the sun, and let the water evaporate until the cloth is dry. Once it's ready, carefully flip over the distiller so all the water runs down to the cap end of the bottle.

Get the bottom of half of the bottle that you set aside earlier, and open the cap of the distiller over it. Let the water drain into the “cup” created by the bottom half of the bottle.

You can repeat this procedure as many times as necessary until you have the amount of water you need!



Building Pocket Oil Lanterns

What You Need

- Small jar with metal lid (jars from airline food or baby food work really well)
- A wick (cotton shoelaces work well, as well as old cotton T shirt scraps)
- Hammer and nail
- Fuel (lamp oil, vegetable oil, etc. Whatever is easiest to find in your area)

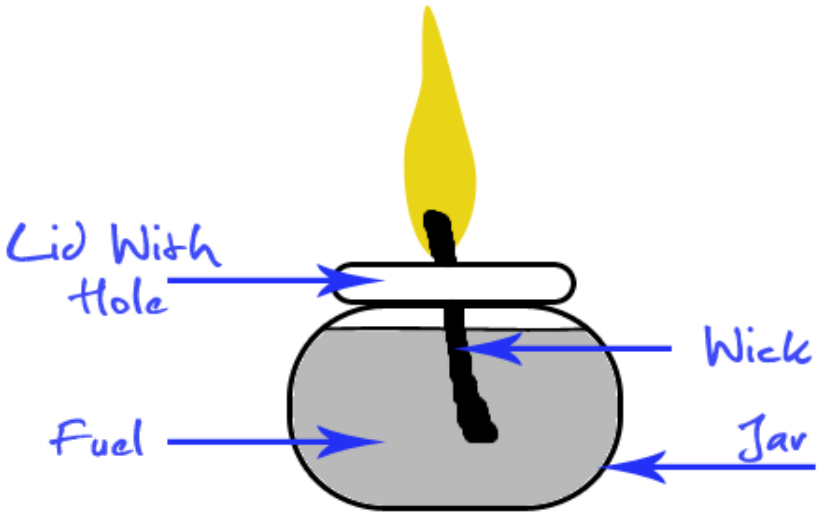
How To Build It

Set the metal lid from your jar on a piece of wood (or another surface you don't care about damaging) and using the hammer and nail, punch a hole through the centre of it. Make sure it's wide enough for your shoelace to fit through.

Making sure you're using a cotton shoelace and not a synthetic or nylon one, thread it through the hole in the lid. Snip off the ends, leaving about half an inch above the lid and an inch or two below it.

Next, fill the jar with whatever fuel you are planning to use, screw the lid back on, and light your wick!

You can complete all the steps except filling your jar with fuel and keep these ready-to-go lanterns in your emergency kit. That way, if the power goes out, you just need to fill them up and light them and you're good to go!


Lid With Hole
Wick
Fuel
Jar

Building A Solar Cooker

We're going to give you the plans for two different solar cookers. Both are effective and simple to build, but one requires more preparation and material gathering. It's up to you which you choose!

Solar Cooker #1

What You Need

2 cardboard boxes, one about 2 inches smaller than the other so they can fit inside each other (the larger box should have flaps)

- Scrap paper or old newspaper
- Black paint
- Glass or Plexiglas sheet (large enough to cover the smaller of the boxes
- Duct tape
- Aluminum foil
- Utility knife or scissors
- Glass cutter (if needed)
- Food thermometer

How To Build It

Seal any holes in your boxes with extra cardboard and duct tape before you begin. Cut the flaps off the smaller box and fold the flaps of the larger box outwards. Paint the insides of both boxes black.

Next, shred or tear your paper and make a layer about 2 inches thick in the bottom of the larger box. Put the smaller of the boxes inside the larger and fill the gap between them with more shredded paper.

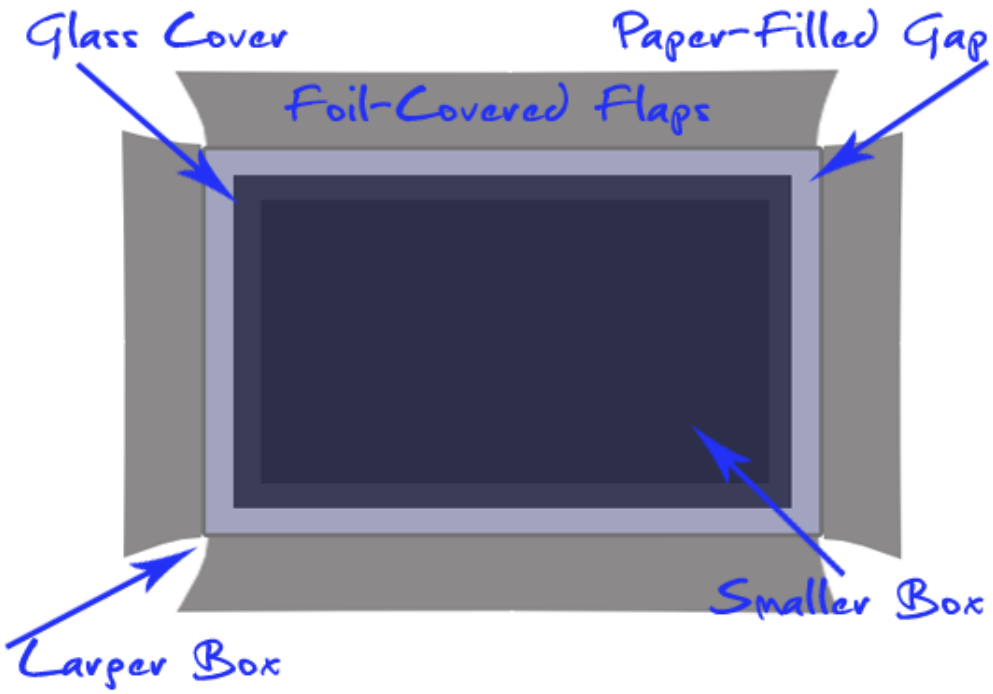
Using duct tape, cover the flaps of the larger box with the foil, shiny side up. Make sure all your taping is done on the back of the flaps so no reflective surfaces are covered on the front, as this is the side that will be facing the sun.

If necessary, cut your glass to size. It should be big enough to cover the smaller box completely, creating a solid seal all the way around. Make sure it's not so big that it doesn't allow the flaps of the larger box to stay upright.

When you're ready to begin cooking, put your food inside the smaller box. For best results, put it in a black or dark colored metal container, but this isn't necessary. Place your glass over top, making sure there are no gaps to allow air to escape, angle the flaps of the larger box slightly outwards, and place the cooker in the sun!

If you find your glass isn't heavy enough to create a proper seal, you can use cans of food or other heavy object in the corners to correct the problem. Don't remove the glass until cooking is finished, otherwise you'll let all the heat and pressure out.

Be sure to test the temperature of the food with your thermometer before eating!


Glass Cover
Paper-Filled Gap
Foil-Covered Flaps
Smaller Box
Larger Box

Solar Cooker #2

What You Need

- A silver windshield shade (the kind that folds up and has a semi-circle cut out of the bottom)
- A cookie rack, small grill or other wire frame
- Velcro (about 6 inches)
- A black pot or container
- A plastic bucket
- A clear plastic bag (make sure it's clean and sterile!)

How To Build It

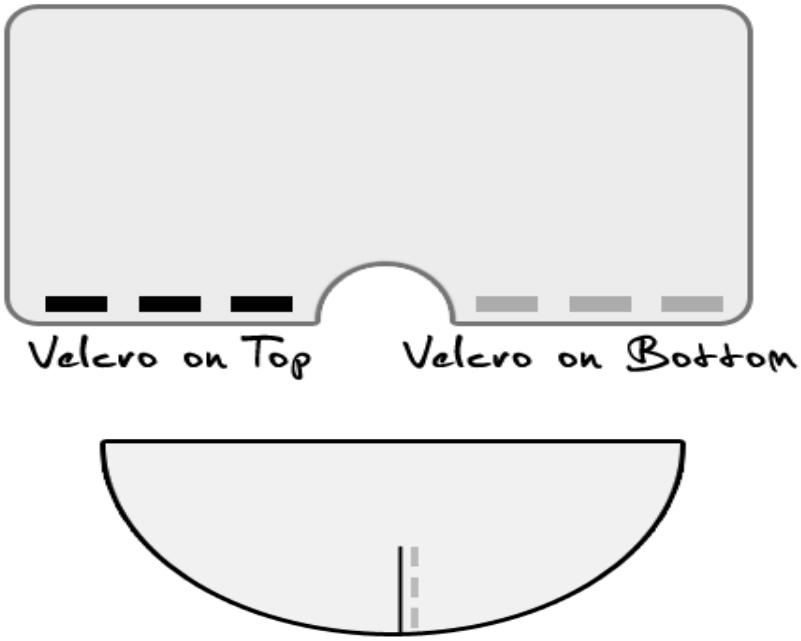
Cut your Velcro into three equal pieces. Sew or tape the "hook" side of each of the Velcro pieces to the bottom edge of the windshield shade, to the left of the semi-circle cut out, **on the top**. Make sure the Velcro is relatively evenly spaced.

Next, sew or tape the "loop" side of each of the Velcro pieces to the bottom edge of the shade, to the right of the semi-circle cut out, **on the bottom.**

Make sure these pieces line up with the pieces on the other side, so you can bring the edges together and form a "half bowl" shape, held by the Velcro.

Set your bowl on top of your bucket so it stays upright and set your wire rack inside. Put your food inside your pot or container, put them inside the plastic bag, and then set them on top of the rack. Point your cooker at the sun and wait until your food is cooked!

Again, you should always check the temperature of anything you plan to eat with a food thermometer before eating it!



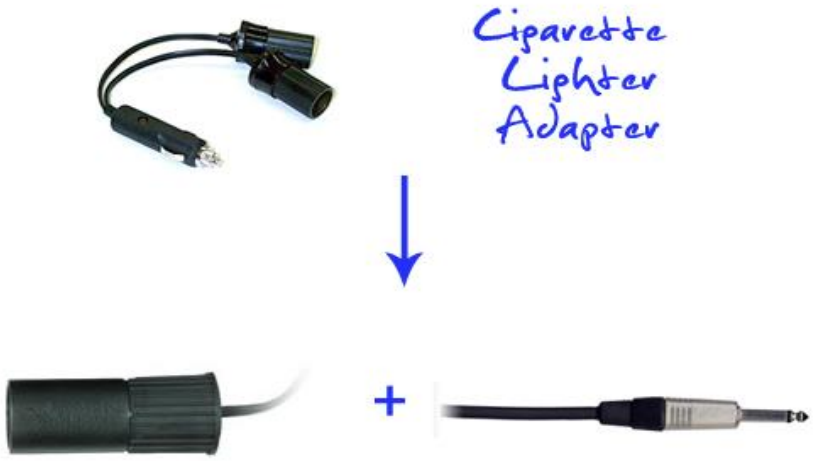
Building A Portable Solar Panel

What You Need

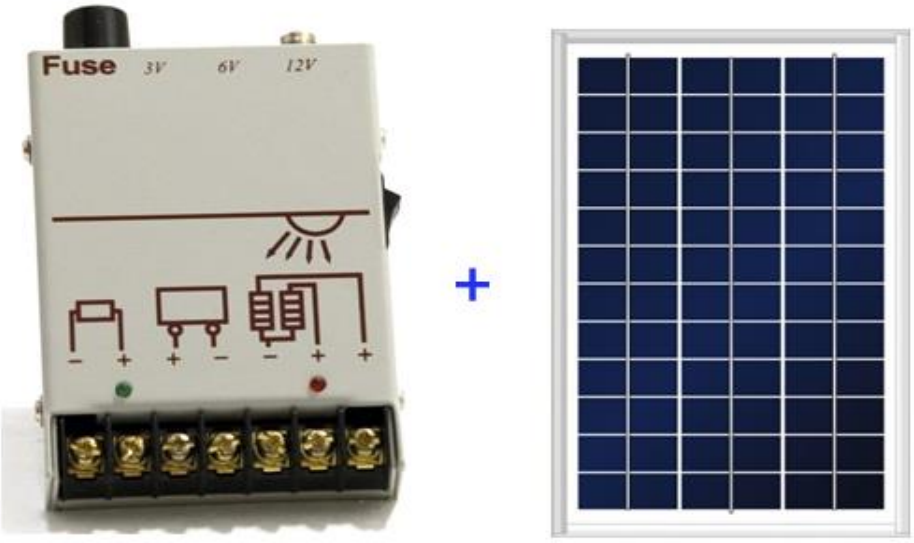
- 5 watt, 12 volt solar panel
- ¼ inch mono plug
- DC Solar Charge controller
- 12 volt 12 Ah rechargeable battery
- 18 gauge wire (about 10 feet)
- Cigarette Lighter adapter
- 200 watt power inverter
- Box (a plastic tub works well, or you can make your own!)
- Wood scraps
- Power drill

How To Build It

First, cut off the cigarette lighter part of your adapter and solder the mono plug to one of the sockets.



Next, connect the solar panel to the charge controller.



Jack the mono jack into the output of your charge controller marked “12 volt”.

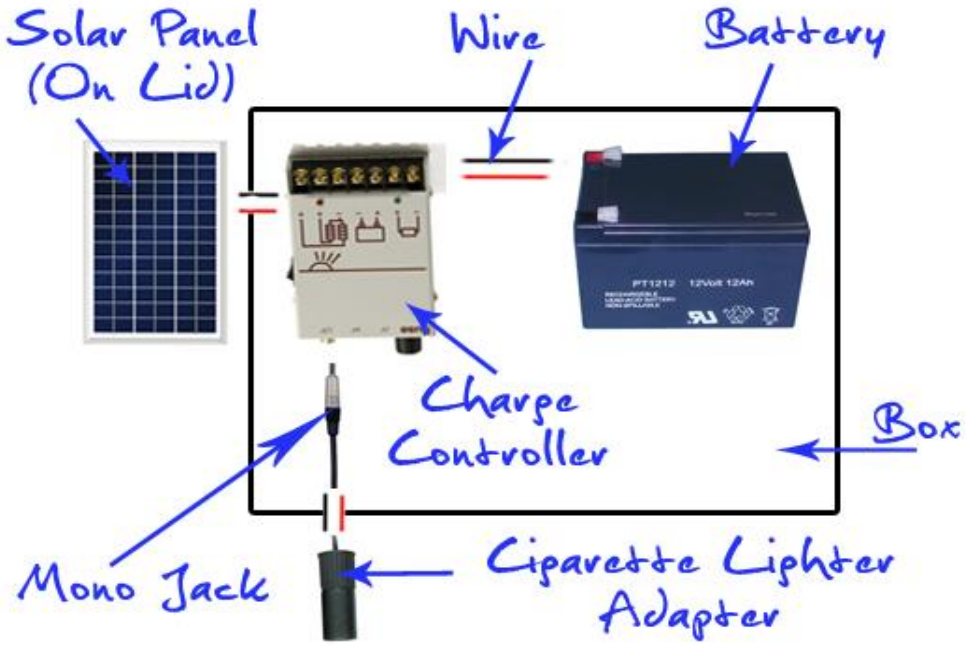
Mount the solar panel to the top of your box. The method will vary based on the construction of your box, so get creative! If you want to create a hinge mechanism that allows the panel to tilt, go for it!

Drill three or four holes through each side of your box to prevent overheating, as well as an additional one large enough for the mono jack to pass through. The adapter should stay on the outside of the box – you can hot glue or tape it to keep it in place, if you like.

Once you’re sure all your connections are secure and working as they should, connect your charge controller to the battery’s terminals.

Mount the charge controller and battery inside the box, securing them with bungee cords, tape or glue to keep them from shifting.

To charge the battery, leave your box out in the sun for several hours. When you bring it in at night, you’ll be able to plug any 12 volt electronic device into the adapter and power it!


Solar Panel
(On Lid)
Wire
Battery
Charge
Controller
Box
Mono Jack
Cigarette Lighter
Adapter