

Handy Tricks Episode 9

by [TimAnderson](#) on November 1, 2008

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Tim Anderson is the author of the "Heirloom Technology" column in Make Magazine. He is co-founder of www.zcorp.com, manufacturers of "3D Printer" output devices. His detailed drawings of traditional Pacific Island sailing canoes are at <http://www.mit.edu/people/robot>.

Tim's philosophy involves building minimum-consumption personal infrastructure from recycled scavenged materials. Redirecting the waste stream. Doing much with little. A reverse peace-corps to learn from poor people all over the world.

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Intro: Handy Tricks Episode 9

Handy Tricks 9: Oodles of random tricks! More will be added randomly!

To see even more handy tricks, check out the rest of the saga at

- [Handy Tricks 8: Island Handy Tricks](#)
- and [Handy Tricks 7: Bike Mods and Projects](#)
- and [Handy Tricks Six!](#)
- and [Australian Handy Tricks](#)
- and [Guatemalan Handy Tricks](#)
- and [Yet More Handy Tricks](#)
- and [40 More Handy Tricks](#)
- and [Fifty Handy Tricks](#).

For a bunch of things that didn't work, check out [How Not To](#).

First collection of tricks:

Damon checks out the riggers [for his new rowing shell](#).

0. The boat is carved from pink styrofoam insulation and covered with fiberglass.

1. The boat is up on plywood boat stands made by Vincent Bachet.

2. They are padded with carpet scraps.

3. Damon made the riggers from chunks of aluminum tubing fibreglassed together.

4. The oarlock pins are stainless tube, lashed on with kevlar roving that's then soaked with epoxy.

4a. After some use they slipped. He drilled holes through kevlar and aluminum, sunk screws to pin them in place.

5. The handles of serious oars are not varnished or painted. They are left as bare wood. Apparently that is easier to grip and causes fewer blisters.



step 1: Check Cloth for water-proof-ness

Star is making a tarp for ultralight camping. She checks the cloth porosity by trying to suck air through it. If no air goes through, there's no porosity and the coating is continuous. It's waterproof.

An Ojibway Indian showed me the same method to find leaks in a birchbark canoe.



step 2: Nicopress Crimping Stand

Jon Pompa crimps cable stay ends.
He clamps the crimper in a vise so it's less work to use.

First he uses the vice to deform the sleeve and hold the cable and thimble in the right place.
Then he crimps several times from outer to inner. The crimping lengthens the nicopress sleeve so the tail of the cable ends up fully enclosed. That way no "fish hooks" hang out to snag and cut you and your stuff.



step 3: Light Tent

To get good diffused light on your projects use a "light tent". It's just a white cloth thing with some lights shining on it.

The plain white background makes the object of interest stand out.

Also it makes your file sizes much smaller. Plain white requires no extra data to represent even if it's a billion pixels. Gravel or grass in the background, on the other hand, makes your photos into cluttered data hogs.

There are couple of light tent instructables.

An upside-down card table with a sheet thrown over the legs would make a good light tent.



step 4: Vodkavocado

Here's the latest taste sensation.
It's also good with honey. Start there. Avocado, water, and honey makes a great drink.

There isn't a wrong way to make it. Except with cocoa. Chocolate goes on the side, along with the leftover food feast.

The name needs work. Maybe outsource that to Serbia. They seem to have a thing for names like this.



Image Notes

1. xylitol - optional
2. avocados - not optional
3. frozen bananas - optional
4. vodka - optional
5. egg yolks - optional
6. milk - optional
7. leftover food - I'll race you to it.
8. blender - not optional

step 5: Thermostatic Controlled Electric Skillet

We live in a degenerate age. Our stoves are wasteful and clumsy.

Here's a superior electric skillet from the dark ages. It has a thermostat.

A thermostat controls temperature. That means your food doesn't burn, even if you forget about it for a while. It doesn't burn, so it doesn't give you gut cancer.

It doesn't burn, so it also doesn't stick to the skillet. So cleanup is easy.

The electrical controller pulls out so you can put the rest of it in the sink or dishwasher.

It cooks faster than a regular skillet due to the thermostat. When you pour your two dozen eggwhites in, the thermostat senses the cold, and turns up the power. So there's none of this burn-wait-wait-burn thing going on.

It's more efficient than a regular skillet/burner combination due to better heat transfer. These heating elements are embedded in the bottom of the pan. A regular stovetop, by comparison, couples heat to the pan poorly and wastes electricity.





step 6: Surface Mount anti-oops device

Star says: Henry Hallam uses a piece of double-sticky tape on the edge of his desk to keep track of small parts while fixing/assembling things, as well as for surface mount parts - you can open the pack without spraying them everywhere.





step 7: Star's Travel Sewing Kit/ Floss

Star says: I made the coolest traveler's sewing kit: combined dental hygiene kit!



step 8: Solar Music Helmet

Star doesn't have to change batteries on her mp3 player anymore. Here's her swank solar powered music helmet. She's got airline headphones permanently attached to the earpieces, the mp3 player attached to the back of the helmet, and a solar panel on top to charge it. she replaced the boost chip on the solar panel so now the mp3 player charges over USB.





step 9: Water Feed for Stone Polisher

Ken Matsumoto in San Jose makes massive stone bowls. Here's one of his polishers. He took a regular hitachi polisher and added a water feed with a ball valve and quick-detach fitting.

He also has a gallery that shows really amazing art. If you're anywhere near San Jose you must see it.

The final photo is a commercial polisher that feeds water straight down the middle of the shaft.





step 10: Silent Disco

Star went to England. She wrote: I learned of another Cambridge cultural gem: the "Silent Disco". Picture forty people in a room, quietly dancing together with headphones on. The typical setup is two DJs each playing music simultaneously, and you choose which of their (non-beatmatched!) jams to dance to by a switch on the headphones. That way, you can adjust the volume for your own comfortable easy listening, as well as choose the music you prefer. Fergus said it was really strange to lift the headphones off your ear to talk to someone, and hear the near complete silence in the dance hall. Yet, it's so popular with Cantabrigians that Friday evening's Silent Disco was sold out, so we went to a pub called the Man in the Moon instead."

I had an idea like this, or more likely heard of it somewhere. In that version you'd use a low-watt FM transmitter and the dancers would wear headset radios. It could be a mobile disco, and bystanders would wonder what this crowd of dancers was up to or on.

It didn't occur to me that you could have multiple music selections at once. The mind perceptually synchronizes unrelated sounds and motions, so probably it would look to you like everyone was dancing to the same music you were hearing. One of the TV stations in my hometown got jammed by the college radio station. You'd see a basketball game or whatever, but you'd hear music from the radio station. It always looked like the players were dancing to the music.



step 11: Shark Repellant

Star sent me this photo.

This is a bag of military shark repellant from Britain.

The instructions say "squeeze bag to produce dense black cloud. Stay in centre of cloud."
That doesn't sound like very good snorkeling.

If any shark experts are reading this, please comment with your favorite shark repelling methods!



step 12: Shopping Cart Dolly 2

This fine cart appeared on our premises recently. Someone cut the sides of the basket off, just leaving a lip to stop things from sliding off. They welded on two upright posts at the front to keep it from sagging. It's very useful, by which I mean it actually gets used a lot.



step 13: Shopping Cart Dolly 3

Here's another dolly made from a shopping cart. It's just big enough to carry an overloaded garbage can to the dumpster. And just high enough to prop something heavy on while it's being moved.



step 14: Detachable Shipping Container Door Shelf

I wanted a shelf on the door of my shipping container. Then I realized I could hook a unistrut shelf bracket into a channel in the door. I shoved blocks behind the bracket to hold it at the right angle. Done!



step 15: Bulletproof Bike Tire

I was given a bike with bulletproof tires, but never knew it. The rest of the bike got scavenged for parts. I tried to take a tire for another bike, and realized it had no stem! The innertube had been filled with some kind of rubber. Probably a two-part urethane of just the right durometer hardness.

After a lot of grunting and messing around I got it off. Here's what the innertube looks like.

It's a lot heavier than an innertube full of air, but I never noticed when it was on the bike.

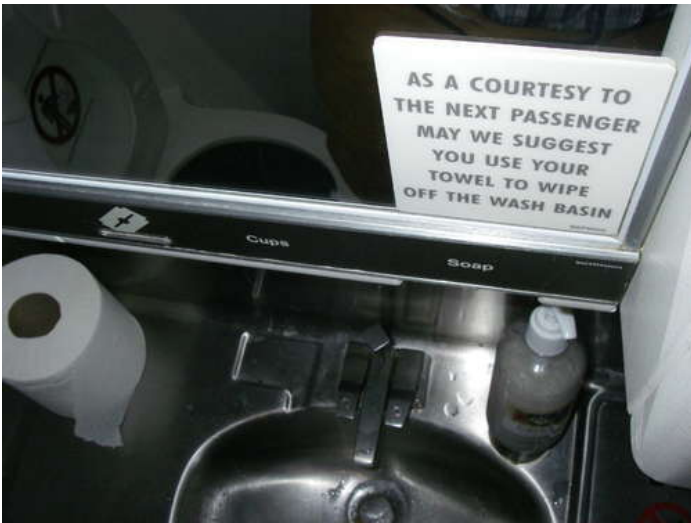
I've heard this is what they do for armored cars and other vehicles that need puncture resistance.



step 16: Get the Customers to Clean Up

Hawaiian Airlines has this sign in their restrooms.

It didn't get me to clean the place, but I didn't trash it as much as I usually do.



step 17: Ceramic Sharpening Stone

The rough bottom of a ceramic vessel makes a good sharpening stone. Here I'm sharpening a pair of scissors. A sharp pair of scissors makes a nice sound. Also it cuts well. Look carefully at how the bevels go together before you sharpen scissors the first time. If you grind on the wrong thing you'll make your scissors worse rather than better.



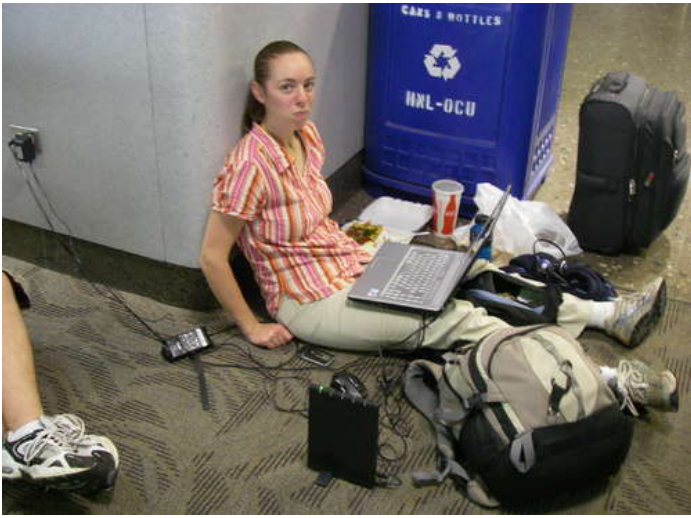
step 18: Head-Sized Steam Tent

Stephanie Simpson wanted to get over a cold. So she made this head-sized steam tent. She filled the basin with boiling water, a few drops of eucalyptus oil and some camomile tea.



step 19: Mobile Internet Connection

Jennifer brings her Clearwire ISP box with her when she travels. Here she is in the Honolulu airport plugged in and online. There's coverage most places she goes. There's no charge for roaming.



step 20: Paint Stick Stain Sampler

What a great way to display what shade of stain you'll get on blonde wood.
When the display gets changed, the color samples can be given away to mix paint.

Seen at Pagano's Hardware, Alameda CA.



step 21: Inside a Propane Tank

Looking for a fluid level sensor? Here's what's inside a propane tank.

The obsolete kind with a round knob on the valve anyway.

The float linkage raises and lowers a pushrod that goes up into the valve.

Inside the valve on one side it's attached to a magnet. You can see metal filings stuck to the side of the valve there. They move when you move the float.

The tank filling machine must have had a hall sensor to detect the position of that magnet.

WARNING!

Don't cut up propane tanks unless you know how to do it safely!

That means fully purging all fuel and vapors and filling the tank with water first.

You'll look and hurt bad if your face gets burned off!

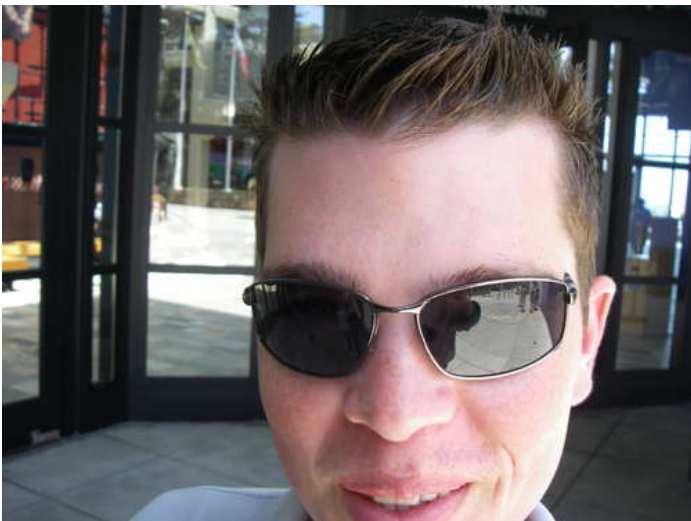


step 22: Temple Grip Glasses

Sean C. Upton at the Monterey Bay Aquarium has invented a new way to keep his glasses on his face.

He cut the earpieces short, put soft rubber pads on the ends, and uses them to grip his temple bones. He's been wearing them this way for a month or so and likes it a lot.

It's very Agent Smith.



step 23: Firehose Ball

At the Saxton's River Vermont 4th of July Parade the locals play a big game of Fire Hose Water Polo every year. It is played by the members of the Saxton's River Volunteer Fire Department right on Main St. The winning team gets an award!

Contributed by Cyrus Shaoul





step 24: Lip Balm Cartridge Belt

This gent at burningman is armed with an array of lip balm to help protect the innocents from such hazards as UV, caustic dust, and very low humidity. He's helping out at the Black Rock Yacht Club, where people learn to ride wind-powered skateboards. Shot by Star



step 25: Tape Stripe Hotrod

These gents in Edinburgh have sexed up their Volvo by adding racing stripes of tape and a number, which are the only things a race car has that are better than a regular car. Good going! You just saved the planet from thousands of pounds of carbon emissions relative to a conventional hotrod. Shot by Star





step 26: Scottish Dream Car - Interior

These gents in Edinburgh have tricked out their Volvo's interior to make it totally up-to-date. For instance, they've duct-taped a TV to their dashboard.

Shot by Star





step 27: Scottish Boat Wheels

Tides usually rise and fall much more in the high latitudes than they do at the equator. That means if you park your boat above the high tide, launch at low tide, the tide range is 20ft and the slope of the landing is 5 degrees, how far do you have to drag it? Answer: far enough to wear a hole in the bottom.

Solution: put wheels on your boat. Some of the dinghies here in Edinburgh have the wheels built on permanently, some use a little cart to put their boats in the water.

Shot by Star







step 28: Artsy ConcreteSteps with Bike Chain

Seen at a squatter house in Oakland CA.
When they fixed up the front stairs they embedded ornaments in the cement.
Good idea well done!



step 29: Can-Fence Grafitti

Spraypaint doesn't show up well on a chain-link fence?
Drink 200 cans of "energy drink" and you'll think of a solution for sure!

Seen under I-80, West Oakland, CA





step 30: Antifreeze in drain trap prevents freezing and broken pipes

My dad pours some automotive antifreeze into the sink to "winterize" our cabin. The antifreeze keeps the water in the drain trap from freezing and breaking the pipe.



step 31: Soccer Ball Flower Pot

got a sentimental soccer ball that just got run over by a car? Got a sentimental plant in a flower pot that just got dropped? Put them together!

Spotted in The Mission, San Francisco CA



step 32: Ultralight Shoes

My cousins hiked the Appalachian trail. They said some of the hikers did it barefoot. When barefooters went to a store or restaurant there was trouble with the "no shoes no shirt no service" superstition/bigotry. Some barefooters solved this problem with a magic marker. They just drew sandal straps on their feet and strode boldly in. I tried it recently at a fancy restaurant. That marker is MAGIC! indeed. Next time maybe I'll draw on a shirt too...





Related Instructables



Lighter Trick 2 - Amazing Lighter Trick (video) by easybartricks



Handy Tricks Six by TimAnderson



How To Open a Pesky Pistachio Nut by TechShopJim



Cleaning Sponges (slideshow) by ewilhelm



Instructopedia! The Source of Everything You Ever Needed To Know by KentsOkay



Turkish Toothpick Trick by TimAnderson



Mind Magic | Easy Mind Magic Trick (video) by easybartricks



how to count cards by the4est

Comments

17 comments

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benner81 says:

Nov 17, 2009. 12:22 PM [REPLY](#)

I see in the picture you're using RV antifreeze, which is probably propylene glycol. Regular automotive antifreeze is usually ethylene glycol, which is considerably more toxic. You should probably avoid pouring ethylene glycol down the drain, especially if your cabin has a septic system.



SandDevilJack says:

Nov 11, 2009. 7:05 PM [REPLY](#)

If S.I. can paint bikinis on supermodels, then why not sandals on your feet!



backyardmunitionist says:

Oct 2, 2009. 2:43 AM [REPLY](#)

Ceramic makes a pretty good sharpening surface. I even picked up a large ceramic baking dish at a local store. It has a flat unglazed bottom instead of the normal ring found on most ceramic kitchenware. It's big enough to sharpen a large knife like a machete.



harley_rly says:

Sep 2, 2009. 4:18 PM [REPLY](#)

theres like, 85 cans there



sharlston says:

Aug 4, 2009. 8:33 PM [REPLY](#)

the bullet proof tire you mentioned ive got one it comes in a aerosol can you simply attach the hose to the valve and turn it on and it instantly fills the tire up with a hard green foam



greatscotmagic says:

Jul 29, 2009. 8:46 PM [REPLY](#)

Hi, Tim,

Since I started baking bread using the Artisan Bread in 5 Minutes a Day I have gotten into other types of baking and cooking which resulted in my using kitchen appliances from the 1950s. I started out with getting a Sunbeam Mixmaster from my Mother-in-Law and resurrecting my wife's Sunbeam electric fry pan.

I came across this article from e-how while researching methods for cleaning up the fry pan and future appliances for my collection.

These older appliances had many uses, the makers were pretty ingenious when it came to making them multi-purpose.

The instruction manual for my fry pan has recipes for baking cakes, making roasts, hamburgers, and things that you would not imagine you can do with the fry pan.

I discovered that some electric fry pans were also broilers by adding an electric coil in the lid and a grill rack that fit in the bottom.

Until I read your tip, I didn't think about the things you mentioned like energy efficiency and how well it cooks due to the thermostat.

There are lots of uses for these vintage appliances and the more I find out about them, the more I want to add them to my kitchen,

BTW, I discovered the Artisan bread baking method here on Instructables. Here is the URL:

http://www.instructables.com/id/Artisan_Bread_in_Five_Minutes_a_Day/?&sort=NEWEST&limit=50&offset=50

Keep making these great Instructables, I really appreciate them.

P.S. I live a few miles from Saxtons River.



Brianinmaine says:

Yep, they sell them at Walmart.

Jun 9, 2009. 9:50 PM [REPLY](#)



alex-sharetskiy says:

gut cancer from burned food?

never heard of that...

is it true?

Jan 26, 2009. 8:14 AM [REPLY](#)



the_mad_man says:

well, apparently carbon (charcoal) is carcinogenic

Feb 15, 2009. 9:31 PM [REPLY](#)



alex-sharetskiy says:

aww..

Feb 15, 2009. 10:27 PM [REPLY](#)



sonic_dan says:

hey, i'm from cambridge - the Man on the Moon's a cool little pub. my band used to play there too!

Nov 14, 2008. 10:47 AM [REPLY](#)



Wade Tarzia says:

Here's *my* request: I'd like an instructable on building a foam-and-glass boat like that. Seems to me that would answer some calls I have been hearing for light car-topper boats, something more than a kayak and less than a trailer-sailer. I know people with some serious boats but they are so high-techy they take too long to set up if all you have is two hours for a quickie cruise. I heard one such fella daydream the other day at the beach about a car-top outrigger sailing canoe, very light, 5 or 6 foot BOA. A slim Dow-foam and glass outrigger, similar in build to this rowing shell seems promising. A wet boat, sure, and not terribly comfortable, but just the thing for those free two hours.

Nov 4, 2008. 5:17 AM [REPLY](#)



TimAnderson says:

Here's Damon's full instructable: http://www.instructables.com/id/Building_a_Rowing_Shell/

Nov 4, 2008. 8:17 AM [REPLY](#)



Wade Tarzia says:

Thanks. I don't know why I didn't think I'd find it here ;-) He seems to be missing an important step, though. Not sure how he got from thin foam sheets to the nice hull on the table.

Nov 5, 2008. 6:20 AM [REPLY](#)



thebluemartyr says:

sewing kit and double sided tape were the only really clever ones, but the thermostat controlled skillet and solar helmet, what's the handy trick? go buy a skillet with a thermostat? and the helmet could have done with a little more detail or instruction, and i can't even tell what is going on in the first one, maybe it's useful to a more specific audience, but all i took from that was cover boat stands with carpet.

Nov 2, 2008. 8:15 PM [REPLY](#)



dchall8 says:

In the intro there's a lot of discussion. I'm guessing the handy hint is to make the stands out of wood...but I'm just guessing.

In Step 2, there is a good reason for leaving the ends out of a Nicopress fitting. If you leave the ends out and suddenly notice that the loose end has pulled up inside the sleeve, you know to throw that wire away because the sleeve is slipping. When you start out with the end inside the sleeve, you'll never know that it was slipping until it releases entirely. When your life (or very expensive equipment) depends on it, you have to have something to inspect for failure. Use two sleeves and leave one cable diameter length of cable extending beyond the sleeve. If you make a mistake, clip the sleeve off and start over.

In Step 9 the pictures are sort of confusing. What am I looking at? One piece looks like a grinding machine but there's a lot of clutter to sort through.

Nov 1, 2008. 3:06 PM [REPLY](#)



Plasmama says:
Wow, you made that quick! :-)

Nov 1, 2008. 2:42 PM **REPLY**
