

How to make a Hacker's Wallet v.1.0 using reclaimed materials

by [royshearer](#) on March 16, 2011

Table of Contents

How to make a Hacker's Wallet v.1.0 using reclaimed materials	1
Intro: How to make a Hacker's Wallet v.1.0 using reclaimed materials	2
Step 1: What you need.	3
File Downloads	4
Step 2: Cut the material to size.	4
Step 3: Prepare the inner.	4
Step 4: Prepare the outer	6
Step 5: Join the inner and outer.	6
Step 6: Close the bottom edges and sew.	7
Step 7: Finishing	7
Step 8: Adapt, hack, improve and share	8
Related Instructables	9
Comments	9



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I am a freelance design engineer and drummer. My business site is at <http://www.zero-waste.co.uk> and is often concerned with appropriate technologies, open source design and design for sustainability.

Intro: How to make a Hacker's Wallet v.1.0 using reclaimed materials

This document will show you how to make a Hacker's Wallet, a wallet made from recyclates that is easy to make, repair and hack. The project is housed at www.openthing.org/products/hackerswallet.

Features in this version:

A long pocket for UK bank notes with a small opening at the bottom.

Two pockets suitable for several standard credit card sized cards.

Tough and durable for daily use.

Translucent for viewing the contents from the outside.

Measures 105mm x 82.5mm when closed.

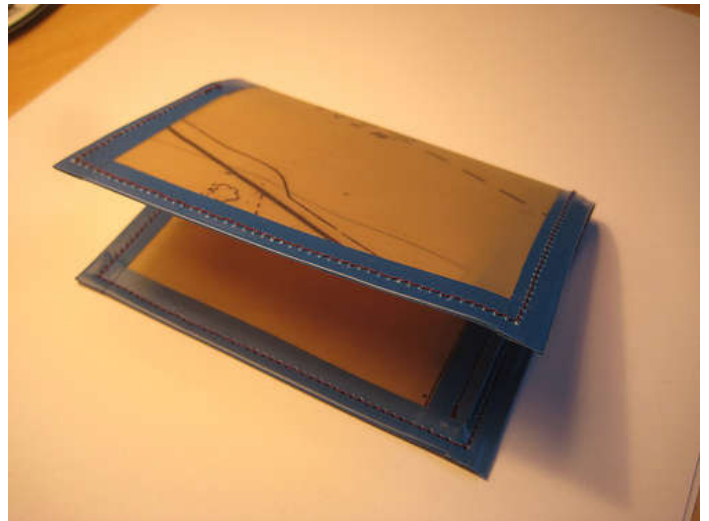
Made by local makers from locally sourced, reclaimed materials.

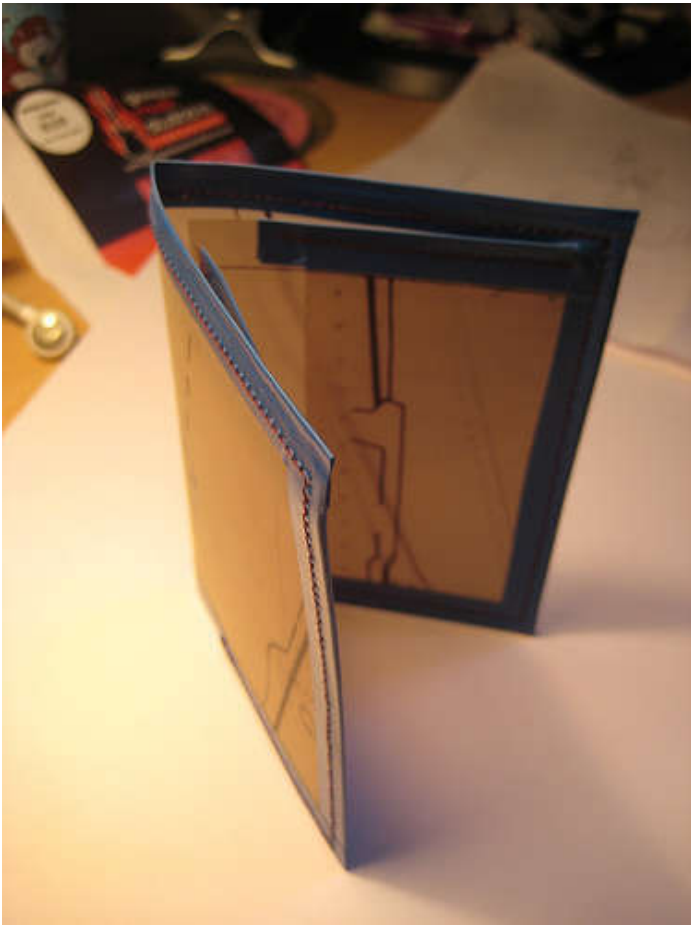
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BY:

[Greensteam](#), [Zero-waste Design](#),
Annalisa Simonella

You can buy Hacker's Wallets from the sites listed [here](#).





Step 1: What you need.

For one wallet you will need:

Electrical/insulation tape - This comes in a variety of bright colours such as these value packs from Maplin . Good quality tape (thicker, cleanly finished at the edges, not too gooey) is a joy to work with but is not essential.

Some reclaimed thin, tough translucent material (see sizes in step 2) - The printed circuit acetate found in computer keyboards is ideal, but hard to get in bulk. I have also used old acetate maps, old window blind material, or what looked like waterproofing membrane. The translucency allows you to see the items inside the wallet from the outside, so again is optional, opaque stuff is also fine.

The template downloadable in the zip below - it is basically two rectangles. There's also a great quick assembly guide below drawn by Annalisa Simonella, included in the zip.

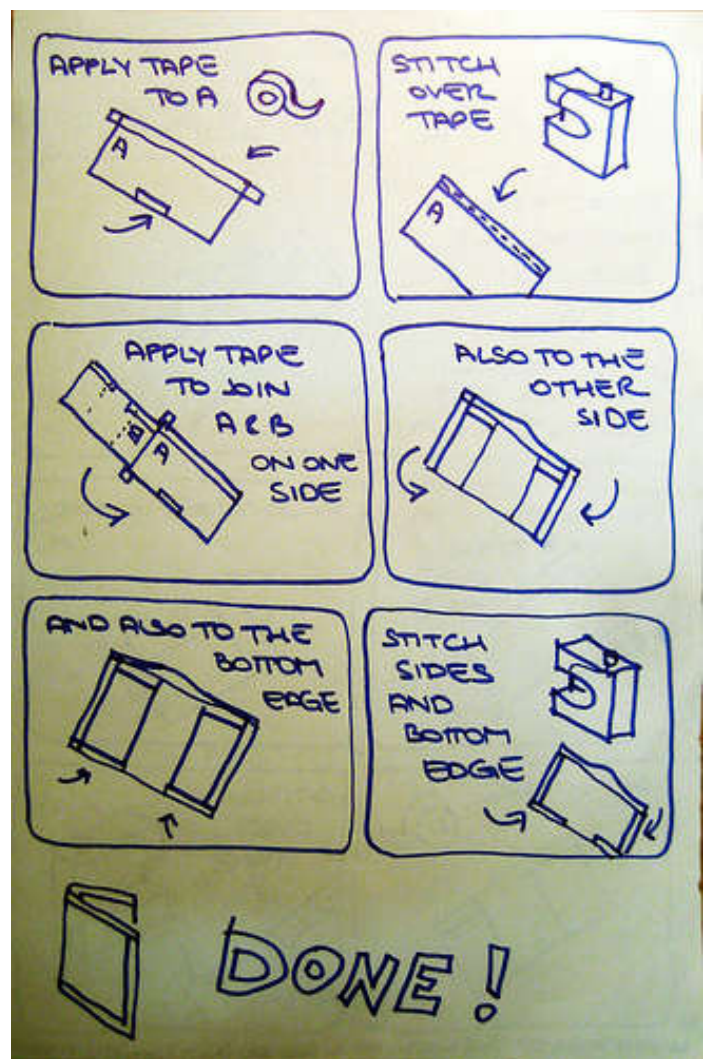
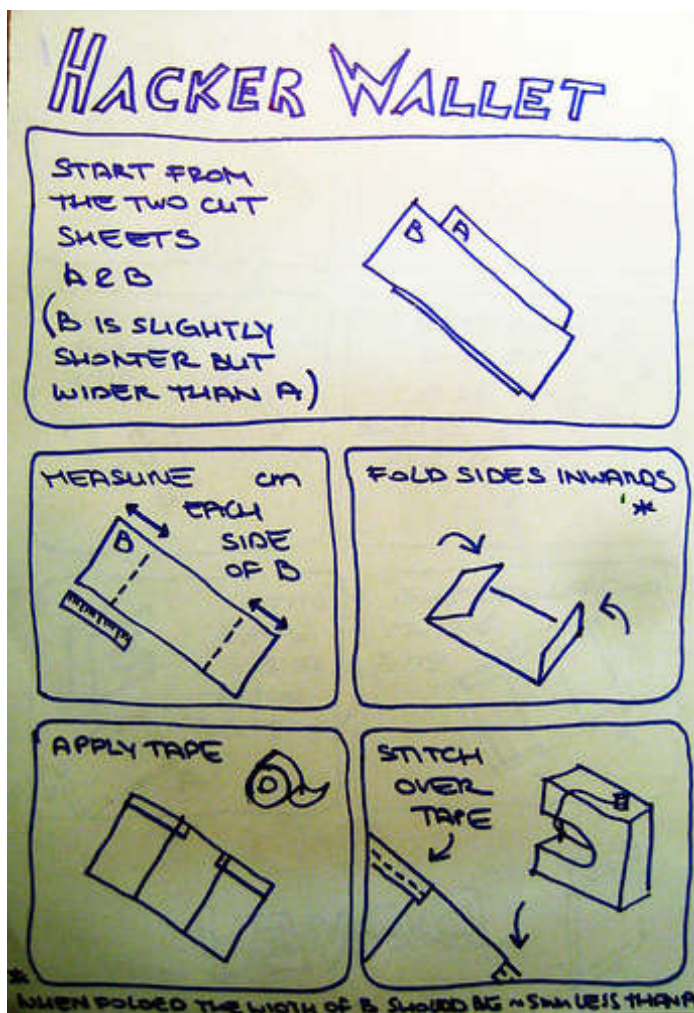
A sewing machine and tough thread - upholstery thread is ideal, or thick cotton thread, or a polymer based thread.

Scissors.

A craft knife and new blade.

A straight edge and cutting mat, or a laser cutter.

A small piece of scrap cardboard or plastic. (~ 50mm square)



File Downloads



hacker's wallet v1.0.zip (8 MB)

[NOTE: When saving, if you see .tmp as the file ext, rename it to 'hacker's wallet v1.0.zip']

Step 2: Cut the material to size.

If you are making wallets in bulk and have access to a laser cutter, then laser cutting the parts from the template file will save a lot of time.

Otherwise, good old manual cutting is also good. Mark out the parts to be cut in fine marker on your material using a ruler. Cut using a craft knife and straight edge or a large pair of scissors.

If you are making a batch of wallets, cut out templates in card or thicker plastic, and draw around them.

Each wallet comprises an outer part, A, measuring 105mm x 165mm and an inner part, B, measuring 100mm x 260mm.

Step 3: Prepare the inner.

Fold the inner (B) along the two folds marked on the template. The folds are each 50mm in from their nearest edge. These will form the card pockets of the wallet.

Take your tape and cut a length of at least 70mm*. Apply to the top of one of the pocket flaps as shown. The tape needs to overhang the top edge by half its width, and over the end of the flap by 5-10mm. rub to ensure the tape is well stuck down.

Flip part B over and fold the tape along its length over the edge of the flap and back surface and rub down all the way to the edges.

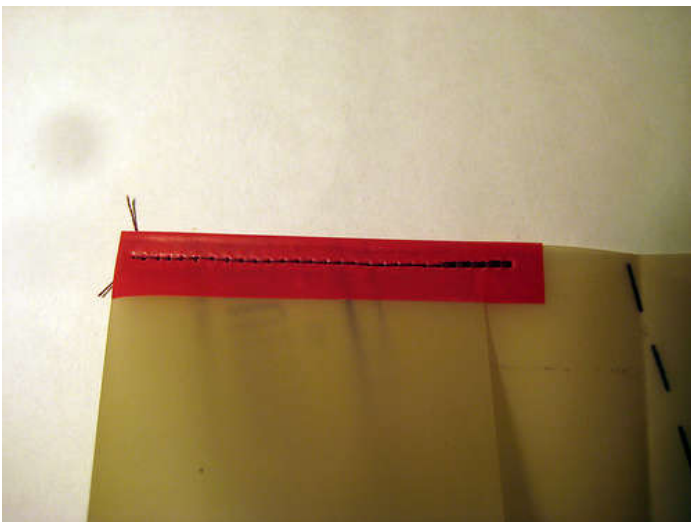
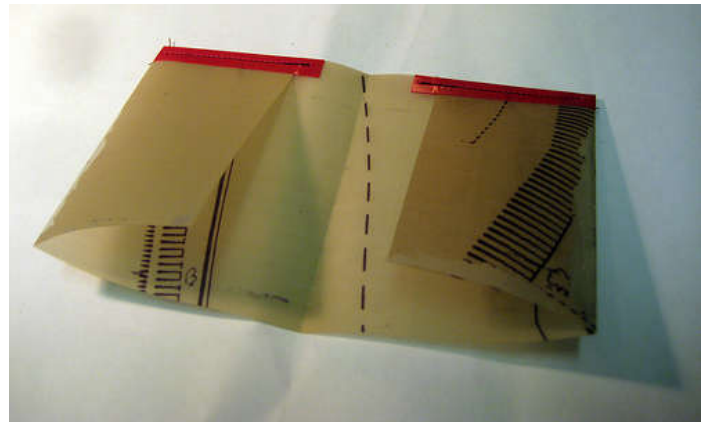
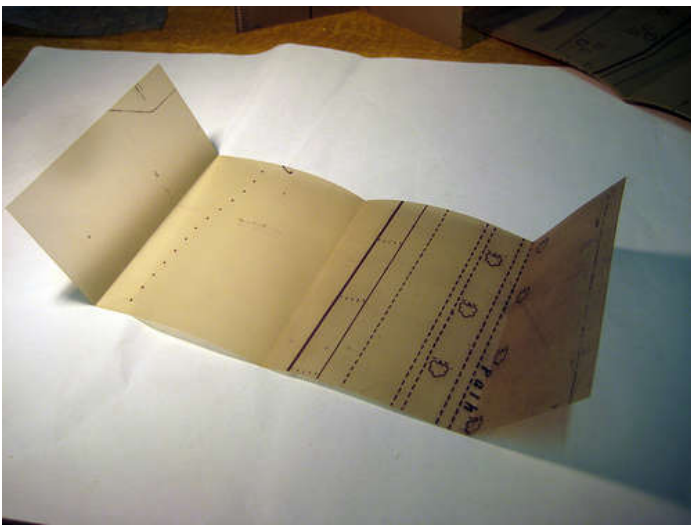
Repeat this process for the top of the flap on the other side.

Trim off the excess tape around the outside edges with sharp scissors.

Sew along the taped edges, about 3-5mm from the edge with a short (~2mm) straight stitch. double back, and double back again on your stitching at the open end of the pocket to ensure a good fastening.

Trim off the excess thread close to the stitching.

* Tip: insulation tape can be torn by hand with a little practice. However, it leaves a decidedly frilly edge, so use scissors for the ends that will be visible.

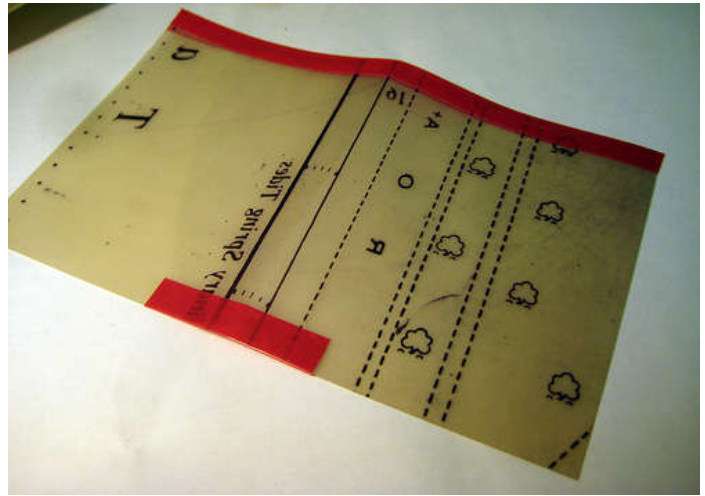
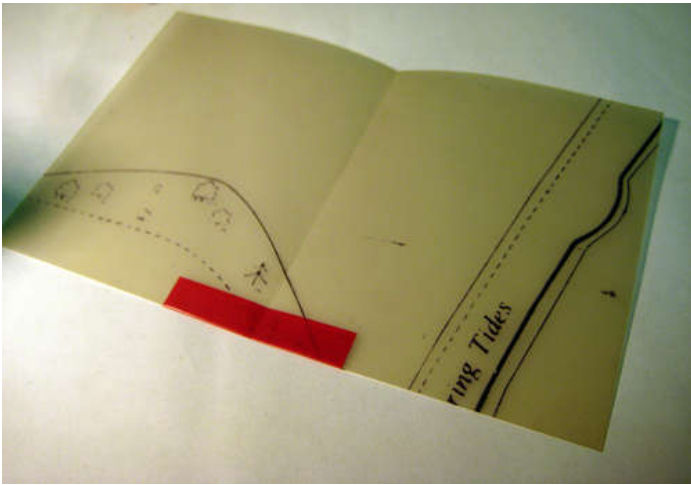


Step 4: Prepare the outer

Tape along the top long edge of part A, allowing some tape to overhang the ends. Again let the tape overhang the top by half its width and fold it over the edge and stick to the reverse side, sealing the edge.

If you are a very precise maker, save this edge for sewing later. If not, sew along this edge now as before.

Cut a length of tape about 30mm long and apply in the centre of the bottom edge as shown. Allow it to overhang, then fold back over to the seal edge as before. You do not need to sew the edge.



Step 5: Join the inner and outer.

Place the outer (A) with the face that you want to be visible facing up, and the long taped edge at the top.

Apply a length of tape sticky side down to the right hand edge, overhanging by half along its length but do not fold over yet.

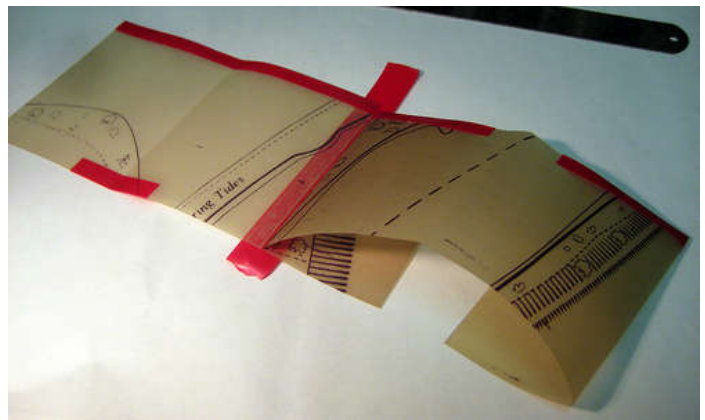
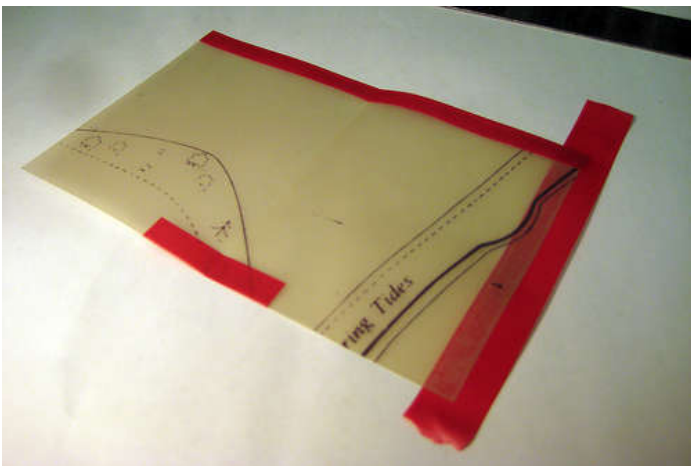
Flip A over so that the taped side is now on the left, sticky side up. Place B to the left with the pockets facing down and the sewn and taped edges at the top.

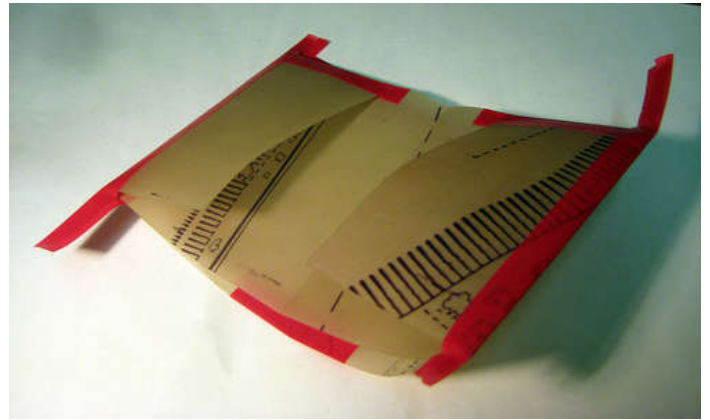
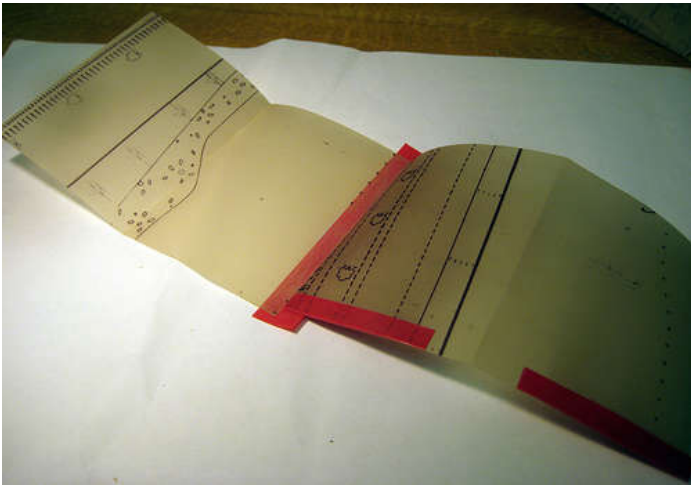
Bring B over to meet A. These need to be lined up at their bottom corners, with a little gap (~1mm) all the way up the taped edge. Rub to stick down.

Flip over the whole assembly and repeat, adding tape in the same way to the other side.

Flip the whole assembly over again so that the tape is sticky side up. Fold B over onto A and line up the free edges, so that they meet at their bottom corners, as shown. You will have to pull B so that they meet up as it is 5mm shorter to allow the wallet to easily close. Fold over the tape and rub to seal.

Trim off the excess tape.

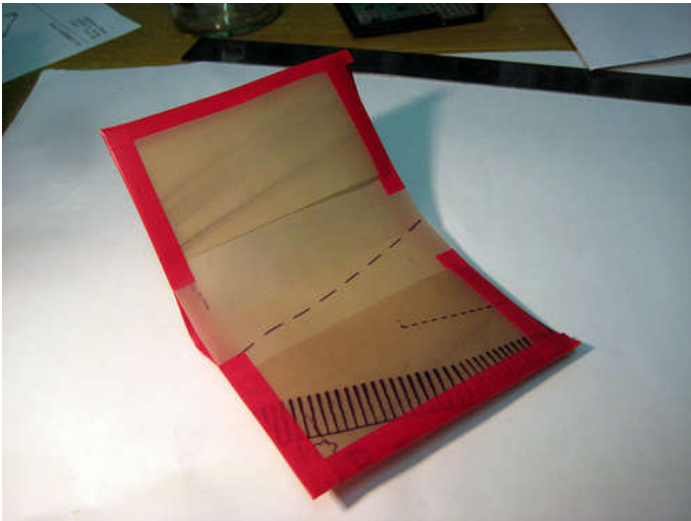




Step 6: Close the bottom edges and sew.

Cut a 70mm length of tape and apply to the bottom edges of the pockets, similarly to step 3, however allow the tape to enclose both the inner and outer this time. Trim off the excess tape at the outside edges.

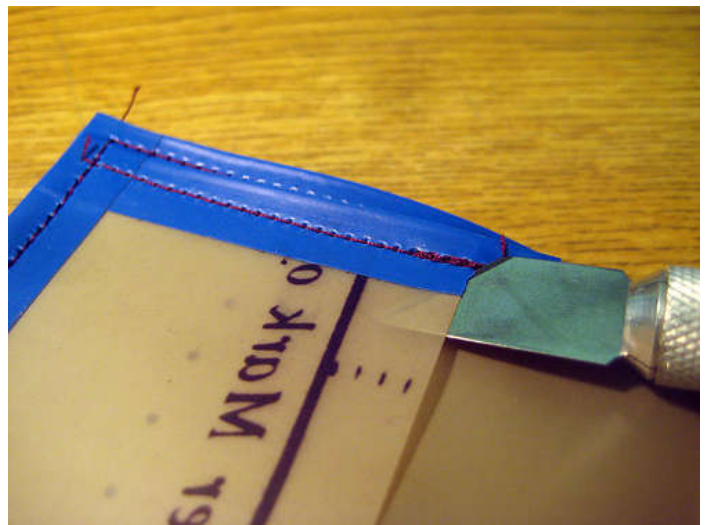
Sew along the bottoms of the pockets and sides of the wallet, in 'L' shaped paths as shown. Again triple the stitching for about 10mm at each end of the stitching, for strength. If you precise, and you skipped sewing the top edge in step 4, all these edges can be sewn in one neat stitch along a 'C' shaped path as shown. Trim off the excess thread close to the stitching.



Step 7: Finishing

Precisely fold the whole assembly in half and crease. This may not work very well if you are using a rubbery material, but will soon work its way into shape with use.

Take a craft knife with a new blade and very carefully slice the 4 pieces of tape at the pocket openings up to the stitching, as shown. It is helpful to lift the ends of the tape and insert a small piece of scrap card or plastic into the pocket to cut against.



Step 8: Adapt, hack, improve and share

This is an open source product, so improve it, publish your results and source, and comment. This can all be done on the development wiki at www.openthing.org/products/hackerswallet.



Related Instructables



reclaimed cardboard tube DIY chandelier
by wvillrachel



Underfoot Tableware: Coasters, tablemats and placemats from carpet offcuts [Alpha prototype] by royshearer



Ten Green Coffee Table - from reclaimed timber and glass bottles by royshearer



Recycled Plastic Wallet [Its FREE] by TheBlueChild



Sew a snazzy oilcloth wallet
by tobias.tanke



Pocketbook And Pocket Book From Water Bottles.
by domestic_engineer

Comments

2 comments

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ilpug says:

Excellent and simple idea. Have you ever thought of making other accessories? How durable would you say these are?

Mar 16, 2011. 7:52 PM [REPLY](#)



scoochmaroo says:

Love!!

Mar 16, 2011. 2:59 PM [REPLY](#)