

Dell Laptop into Digital Photo Frame

by [vorin](#) on May 23, 2008

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intro: Dell Laptop into Digital Photo Frame

These are the steps I used to create my Digital Photo Frame from an older Dell 1150 laptop.
EDIT: thanks for the Feature!



Image Notes

1. other framed pictures
2. other framed pictures
3. other framed pictures
4. touchpad
5. xp startup

step 1: Software overview/Gut the Lappy

Before I did anything, I planned it out. I knew I wanted a fully-functioning laptop on the wall mainly to be used as a DPF.

The software I used for the slideshow was Slickr, a screensaver that downloads pictures of any specified subject, flickr user, or set of photos on the fly. It works really nicely if you put a shortcut to it in the Startup Folder.

I also use TightVNC to connect to it across the network so I can have total control over it when I need to. I also wanted some control over it without VNC, so I also have the touchpad available, but more on that later.

The first thing I did was to really commit to the project and begin dissecting the laptop to see really what I needed. You'll find lots of extraneous plastic and metal brackets, and knowing what's what will help you decide what you need and what you don't.

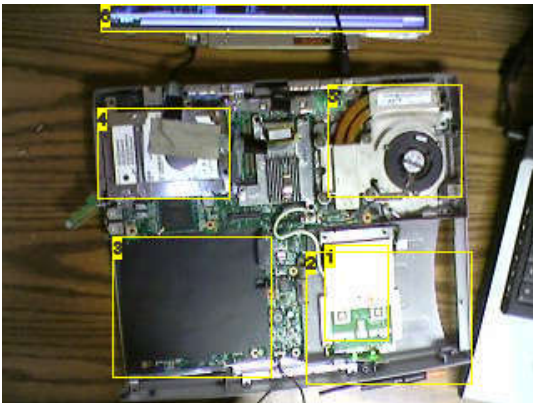


Image Notes

1. touchpad and left/right buttons
2. Battery Compartment(Won't be needing that!)
3. where the CD Drive once was
4. Hard Drive
5. Cooling
6. LCD having out-of-body experience.

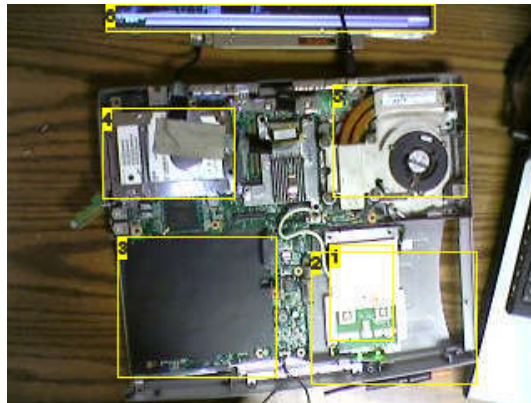


Image Notes

1. touchpad and left/right buttons
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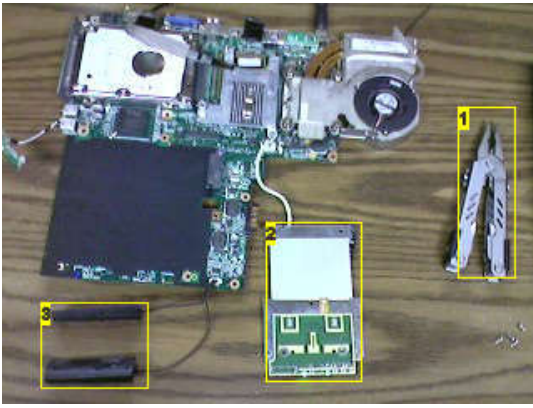


Image Notes

1. Gerber Multi Tool - Don't leave home without it!
2. Touchpad and left/right buttons
3. Stereo Speakers (didn't end up using these)

step 2: Take out the Garbage

Here are some pictures of the shell of the laptop that really isn't needed for the final project.



Image Notes

1. there ended up being quite a bit of extra plastic here...

step 3: Frame and mat it

I was able to find a decent frame from wally world that suited my needs. The laptop's (15 in. diagonal) lcd was approx. 9 in. tall by 11 in. wide. I found a 10x14 in. that worked nicely. It worked especially nicely when I got rid of the maroon-ish inner frame that was a whopping 1/4' thick.



Image Notes

1. LCD
2. Gray Mat

step 4: Cut the Mat

Cutting a Mat can greatly improve the look of the frame, or, it can make it look like a Diy project (just because it IS one doesn't mean it has to Look like one). I've had some experience in cutting mats and i had access to a decent one in order to cut this one.

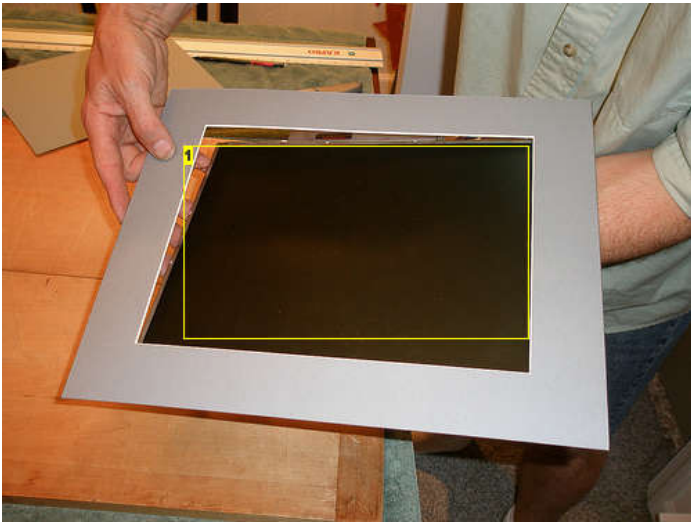


Image Notes
1. LCD front

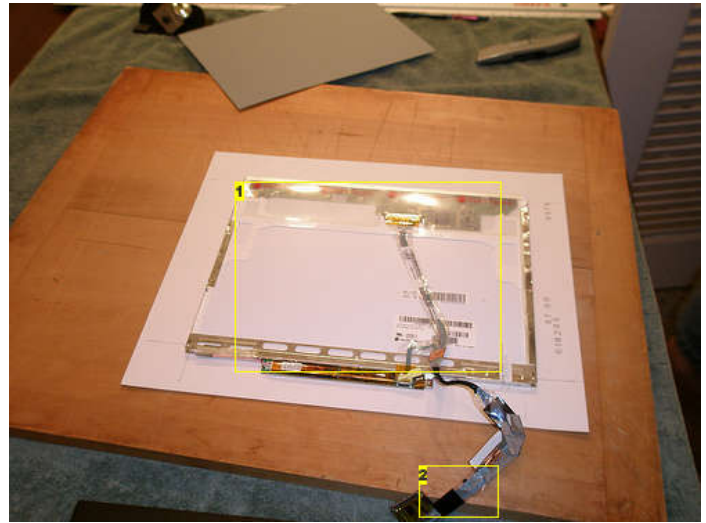


Image Notes
1. LCD back
2. dangling cable

step 5: Foam Core

Foam core is a good tool to make the area outside the lcd even with it. Since we don't want any excess pressure on the panel itself, I also used some corrugate that came with the frame to minimize any dangerous pressure on the lcd. At one point I dropped the lcd panel, so I started it up to make sure it was still working.

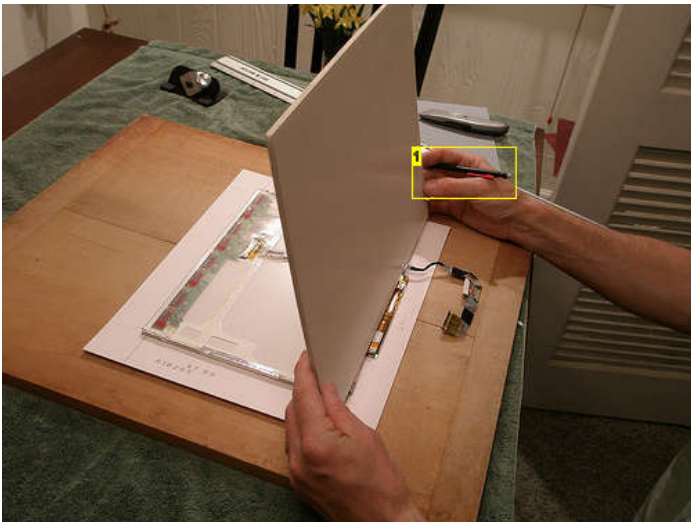


Image Notes
1. Measure Twice..

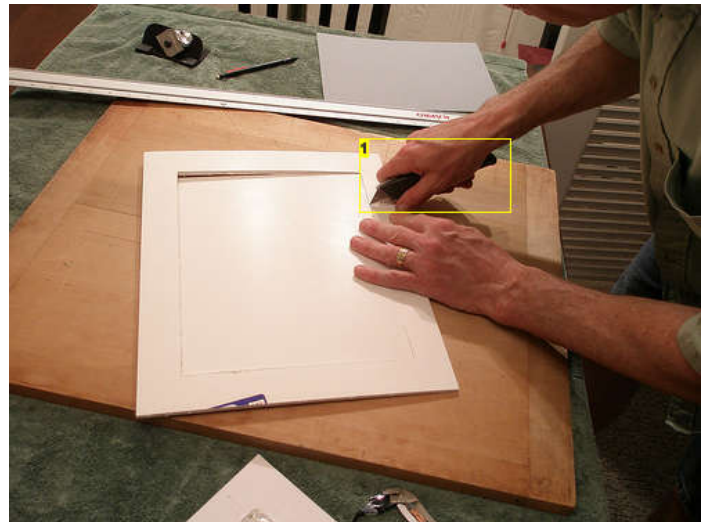


Image Notes
1. Cut Once

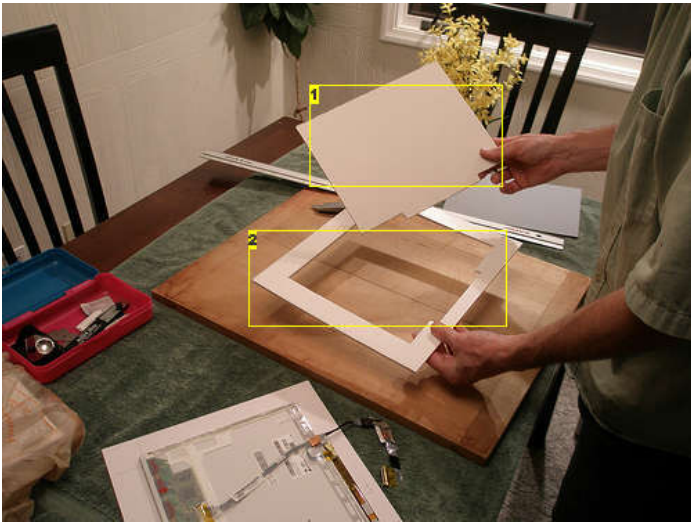


Image Notes

- 1. Discarded
- 2. Used to surround the Panel

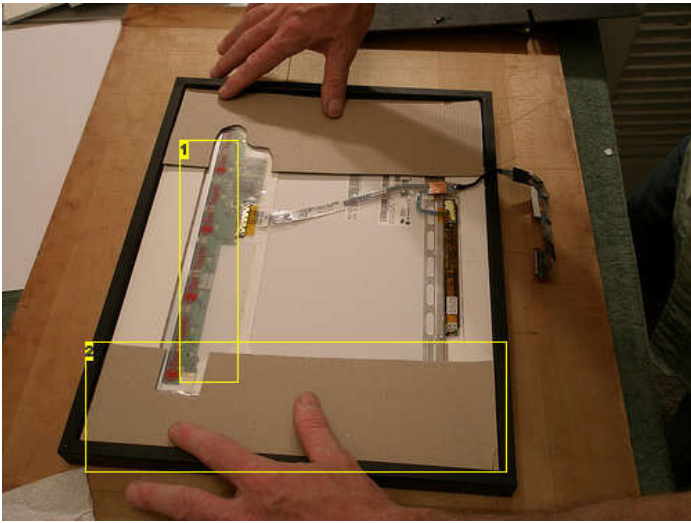


Image Notes

- 1. It says DO NOT TOUCH, so i'm trying to keep any pressure away from it
- 2. Corrugate that came with the frame

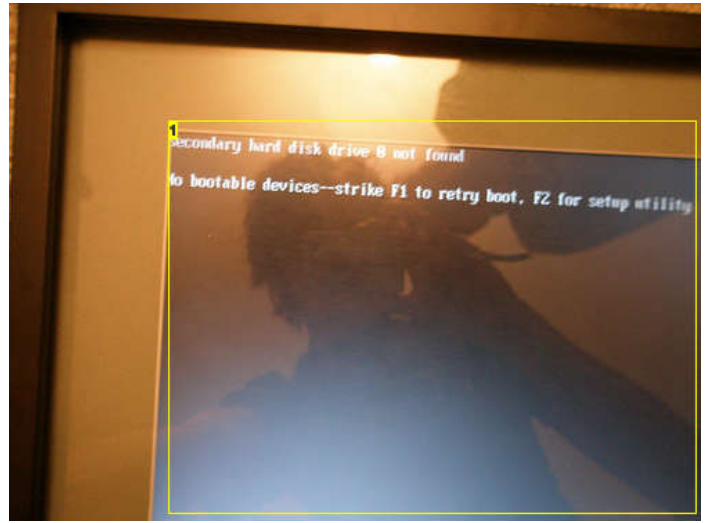


Image Notes

- 1. OK, so i forgot to stick the HD back in, but the LCD does still work.

step 6: Seal the frame with it's original backing

Since I had a piece that I removed, there was room enough for me to seal the original frame with the LCD inside. I had to cut a slot in the back for the lcd cable, but other than that, you'd never know there was an LCD in the frame.

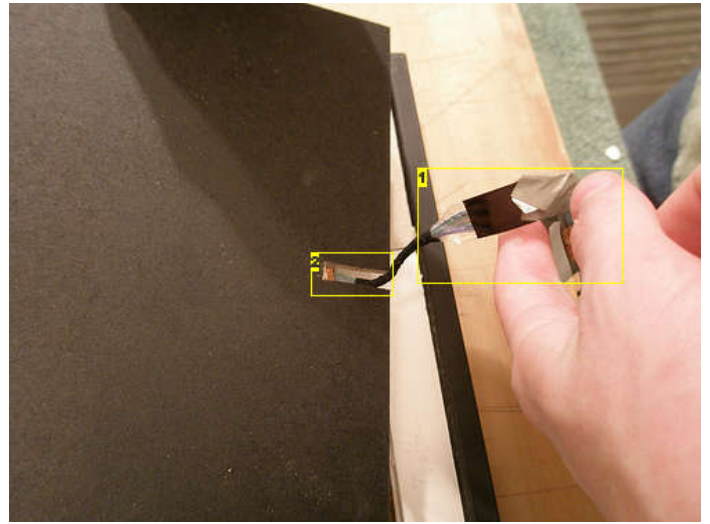


Image Notes

1. LCD cable
2. notch in the back of the board that came with the frame.

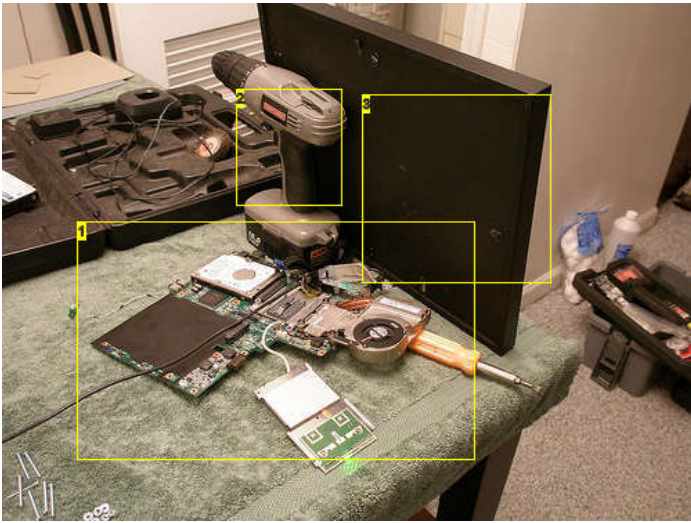


Image Notes

1. All the parts that will need to be on the back of the frame
2. Steady Picture Frame Support
3. LCD enclosed in frame



step 7: The rest of the computer's guts (all of them that matter, anyway)

For my project, I used a board of 1/8" thick Masonite to mount the Motherboard and remaining hardware such as Hard Drive, RAM, and Wireless Card. Initially, I had #6 screws to come through the opposite side of the board to use as stand-offs/mounts, but those were too large and I downsized to #4. After a test-fit, I cut the screws off so they wouldn't stick out too far.

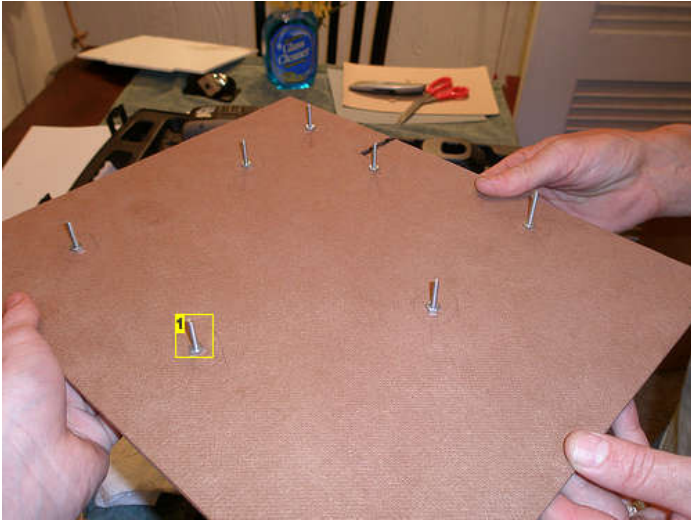


Image Notes

1. Larger #6 sized screws that had to be substituted for #4



Image Notes

1. Motherboard fastened to Masonite
2. correct-sized screws

step 8: Touchpad and Side Wall Stand-offs

I thought it would be nice to have access to the touchpad, so it is being held to the masonite and can be slid to the top if need be. The Sides are partially covered by some white pine that has been painted to hide any of the guts from being seen (remember what I said about professionalism?)



Image Notes
1. Touchpad



Image Notes
1. Spray-painted Black to hide laptop's guts.
2. Where the picture wire will be attached to it
3. Hard Drive Zip-Tied Down

step 9: Put it on the wall

hang it up, plug it in, and watch it go.



Image Notes
1. Touchpad



Image Notes
1. other framed pictures
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Comments


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 **_Ko0LaiD_** says: May 23, 2008. 11:41 PM [REPLY](#)
wha are the specs, just wondering


 **vorin** says: May 24, 2008. 7:38 AM [REPLY](#)
it was a Dell 1150, so if you need more info, you can find it elsewhere, but here are some quick specs:
Pentium 4 Intel Celeron 2.60 GHz
256 MB RAM
30 GB 2.5" Hard Drive
14.1 in TFT active matrix
Intel Extreme Graphics 2

 **Hal The Hacker** says: May 29, 2008. 3:20 PM [REPLY](#)
what the hell is a p4 celeron?
it is either a p4 OR a celeron
and celerons tend not to come that fast so my guess would be a p4


 **Xial** says: Jan 17, 2009. 3:03 PM [REPLY](#)
Nearly a year later, here's your rebuttal:
"N5379: 2.8GHz Celeron, D-Step"
That's a part number for that 1150 used, for its fastest Celeron processor, available from its manufacturer. :)


 **_Ko0LaiD_** says: Jan 17, 2009. 4:56 PM [REPLY](#)
...For dell.

 **jbulldog_11** says: Dec 20, 2008. 5:21 PM [REPLY](#)
I got it done! I suck at cutting mats... haha
[IMG]/[IMG]http://i541.photobucket.com/albums/gg382/jakeholland11/DSC01820.jpg
[IMG]/[IMG]http://i541.photobucket.com/albums/gg382/jakeholland11/DSC01821.jpg


 **jbulldog_11** says: Nov 28, 2008. 2:31 PM [REPLY](#)
Okay, I'm in the middle of making one of these with an old Toshiba, but I cannot for the love of God figure out how I'm going to be able to get to my power button to get it on. I could flip the mobo around but then the fans wouldn't get any air flow. How did you solve this problem??? Thanks!

 **jbulldog_11** says: Nov 28, 2008. 6:57 PM [REPLY](#)
Never mind, I just soldered a switch onto the other one.

 **vorin** says: Nov 29, 2008. 7:07 PM [REPLY](#)
nice, i would have liked to use that method to make a decent-looking switch on the front or side for easy access, but i guess i'm not that smooth, lol.


 **jbulldog_11** says: Dec 1, 2008. 2:22 PM [REPLY](#)
haha, I'm usually not. But I actually did some good soldering for once. I actually had to do like surgery on the lcd connector as I stupidly clipped like 4 tiny wires and bent a connector. Now I'm just waiting on my custom shadowbox!!! I'll post a pic when it's done.


 **vorin** says: Dec 2, 2008. 8:01 AM [REPLY](#)
do it!


 **vorin** says: Nov 28, 2008. 3:18 PM [REPLY](#)
on the pictures in step 8 you can see the slim silver circuit board that connects to the bottom of the frame, facing the wall. Look for the black connector on the MB. I left that button there, and although it is not an elegant solution, it does work.

 **A good name** says: May 29, 2008. 4:33 PM [REPLY](#)
Okay... but who the hell wants to give up their laptop to build a picture frame?

 **electronic boy** says: Oct 18, 2008. 12:29 PM [REPLY](#)
people with rubbish old laptops.


 **mythbusterma** says: Jun 15, 2008. 8:48 AM [REPLY](#)
i was looking at this and think about making one of these with a multitouch display. if i could fit that on a wall...


 **electronic boy** says: Oct 18, 2008. 12:24 PM [REPLY](#)
try using the wiimote and ir leds to get a proper 3d [try jonny lees wiimote projects]image it should be useful, right now i am using a wiimote.

 **vorin** says: Jun 19, 2008. 9:39 PM [REPLY](#)
multitouch would be impossible (prob), or at least Much harder than a (single) touchpad control over the front of the display.


 **mythbusterma** says: Jun 23, 2008. 9:03 AM [REPLY](#)
hmmmm
maybe a hole in the wall would work


 **greatscotmagic** says: Sep 25, 2008. 4:51 AM [REPLY](#)
Neat radio, what kind is it?
Thanks.

 **vorin** says: Oct 6, 2008. 11:36 AM [REPLY](#)
I'm not sure, it's a keepsake from my dad's childhood. Unfortunately, it is no longer working.


 **electronic boy** says: Oct 6, 2008. 9:05 AM [REPLY](#)
i have a laptop but its a Toshiba tecra 8000 with no hard drive has anyone got any ideas of what i could use instead/memory sticks are not recognized.

 **vorin** says: Oct 6, 2008. 11:35 AM [REPLY](#)
assuming it has a functioning CD drive, one route could be a boot-from-CD OS that is entirely run from the CD and RAM. This could be a noisier solution, but it could work just the same.

 **blckthng** says: Sep 3, 2008. 9:40 AM [REPLY](#)
I have a really really old laptop(its friggin ancient) its spec are as follows
Pentium 3 or a celeron
64 MB ram
4.5 gig hard drive
and one usb port(one, hard to imagine innit)
so any point trying this out?
+this should theoretical work for any laptop on earth right? or it there something special in a dell.

 **vorin** says: Sep 3, 2008. 10:29 AM [REPLY](#)
Nothing Special about tearing apart a dell, It's just that your dissection will probably be much different than mine. But if you know your way around a computer, you should be able to do the same thing with any functioning laptop

 **blckthng** says: Sep 5, 2008. 2:03 AM [REPLY](#)
Thanks and btw nice 'able!!!!!!!!!!!!!!!!!!!!

 **mspark400** says: Aug 20, 2008. 7:03 PM [REPLY](#)
while dismantling my laptop i seem to somehow caused the backlight to fail. all connections are still there except for the shielding ground wires which i disconnected.
Any thoughts anyone?
thanks,
mspark400



Detman101 says:
Um....3 hands?!?

Jul 3, 2008. 6:19 AM [REPLY](#)

Scary...

Dm



zjharva says:

Jun 18, 2008. 10:05 AM [REPLY](#)

i shouldn't of done the fanboy comments :(i got carried away. i was going to remove them, but you beat me to it. nice instructable!



vorin says:

Jun 17, 2008. 7:54 AM [REPLY](#)

Hey, everyone, look down here! I don't understand why everyone is fighting about Mac vs. PC vs. Linux. This project didn't even explore software choices besides XP. I have my preferences just like any other computer-user, but i didn't even post those here! Please leave your judgmental OS fights for some other place, this project is all about reworking Hardware, not software.



sexyterry says:

Jun 4, 2008. 10:55 PM [REPLY](#)

awesome instructable~!

ive ripped my laptop apart and installed it similar to yours but it doesnt boot up now.
wat is that white white in the 3rd pic of step 7? i dont have that.. everythign else is the same.
thanks



mythbusterma says:

Jun 15, 2008. 8:45 AM [REPLY](#)

you know that you do need a hard drive to boot right? what you would be looking at now would be the bios trying to find a hard drive to boot from. ;)



vorin says:

Jun 6, 2008. 9:08 AM [REPLY](#)

the thing with the white label is the hard drive. it's essential for the computer to work. all of the software is saved on the hard drive and it certainly will not boot up without it.



electronic boy says:

Oct 18, 2008. 12:27 PM [REPLY](#)

not true,you could use a bootable CD korora or anything else providing you have the ram.



vorin says:

Oct 18, 2008. 11:45 PM [REPLY](#)

for this project, it is essential. If you wanted to see my opinion of using an optical drive as a boot source for a different project, you can read my more recent comment I posted on Oct. 6th.



bigpinecone says:

May 25, 2008. 7:22 PM [REPLY](#)

finally, a good use for a dell!



mythbusterma says:

Jun 15, 2008. 8:42 AM [REPLY](#)

XD so true.....



chrwei says:

May 31, 2008. 4:24 AM [REPLY](#)

I've done a similar one but used a shadow box so it's completely enclosed. can even sit on a table top. some pictures of my process here <http://gallery.free-source.com/gallery/LaptopFrame> maybe I'll add an instructable for them. hard to believe I did that 2 years ago to a laptop that had a whole blown in the case from an exploded battery, been running great hanging on the wall!



vorin says:

Jun 1, 2008. 9:40 AM [REPLY](#)

i thought about going that route, but i feared the laptop would overheat, so i went this route since the internal components wouldn't be able to be seen from the front because of the painted wood on the side.
Basically, it's closed in on the sides but not the top or bottom, so it can breathe.



grimfig says:

May 31, 2008. 2:22 PM [REPLY](#)

Why would the touchpad be above the monitor.



vorin says:

it's above the monitor, but can slide down to be entirely hidden.

That's just where it is convenient, and with the frame being mounted from the top, it's more sturdy too. Plus, if the frame is mounted just under eye level, you wouldn't have to crouch down to use it.

Jun 1, 2008. 9:31 AM [REPLY](#)



bhunter736 says:

Very nice, I think I will start watching Craigs List for an old notebook again. Thank You.

May 24, 2008. 10:34 AM [REPLY](#)



grimfig says:

It's just Craigslist

May 31, 2008. 2:24 PM [REPLY](#)



theblueman42 says:

Cool! Glad I didn't throw away that old laptop!

May 30, 2008. 2:17 PM [REPLY](#)



Mexicomán says:

Is good project for old computer. Good instructable!

May 30, 2008. 6:45 AM [REPLY](#)



enghock1288 says:

Hi, can I know what did you do with the interfaces from the keyboard to the motherboard? Do you leave them floating? Will there be boot error when you power up your computer? Thanks.

May 29, 2008. 7:20 PM [REPLY](#)



joejoerowley says:

Cool! Looks Great!

May 29, 2008. 3:43 PM [REPLY](#)



jkster107 says:

That is a great walk through. Very impressed with your professional job! Now I just need to replace my Dell 8200 and I'll get a nice frame.

May 29, 2008. 3:20 PM [REPLY](#)



hondagofast says:

My old IBM ThinkPad 600E is very fitting of this, but I love that laptop so much I could never do such things to it...

May 29, 2008. 3:03 PM [REPLY](#)



alex-sharetskiy says:

Omg you have 3 hands in step No. 7!

May 25, 2008. 8:10 PM [REPLY](#)



arnoldt says:

haha, had to go back and look at that. hahahaha

May 25, 2008. 8:27 PM [REPLY](#)

[view all 60 comments](#)