

# simple bike storage rack for many bikes in small apartment

by [dan](#) on October 19, 2006

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## intro: simple bike storage rack for many bikes in small apartment

what is the most compact, simple, inexpensive and tangle-free way to store a whole mess of bikes? this is a conundrum i have pondered for many long, sleepless nights. if, like me, you have far too many bikes for your own good, you can surely sympathize with the typical aggravation of either scattered bikes strewn about the apartment or else a tangled jumble from which it takes half an hour to extract the bike of the moment.

the rack system shown is very easy and inexpensive to build, and i believe it is the most compact, tangle-free storage possible for 5 or more bikes. for 3-4 bikes it may still be a good choice depending on the specifics of your location.



### Image Notes

1. 5 bikes in 5-feet of wall, no tangling!

## step 1: what you need

two wood two-by-fours. 8 foot-long will hold 10 bikes.

large vinyl-coated metal hooks, one per bike. these seem to be a fairly standard item at hardware stores, about 70 cents each.

blown innertube

6-8 screws to hold wood to the wall. if you are going through drywall into a stud, you'll need 3.5 or 4 inch long screws.

tape measure

drill

if you need to protect your wall from tire-marks, you'll also want something to cover the wall with - cardboard, paper or plastic sheet.

## step 2: dimensions are the key

this whole setup is totally simple, the only thing is to do it with the correct dimensions.

- height of lower row of hooks: **64 inches** (you want the rear wheels just OFF the ground - if they are on the ground the bikes will not hang straight)
- height of upper row of hooks: **78 inches** (keeps the wide parts of the lower row bikes in line with the narrow parts of the upper row bikes)
- spacing between hooks at the same level: **22 to 24 inches** (for a 11 or 12-inch overall bike spacing)
- you can reduce the spacing a little, the more you reduce the more tangling you will have trying to get the bikes in and out. at 24-inches the handlebars on mountain-bikes will be just next to each other. if you only have road-bikes you can do 22 inch spacing.



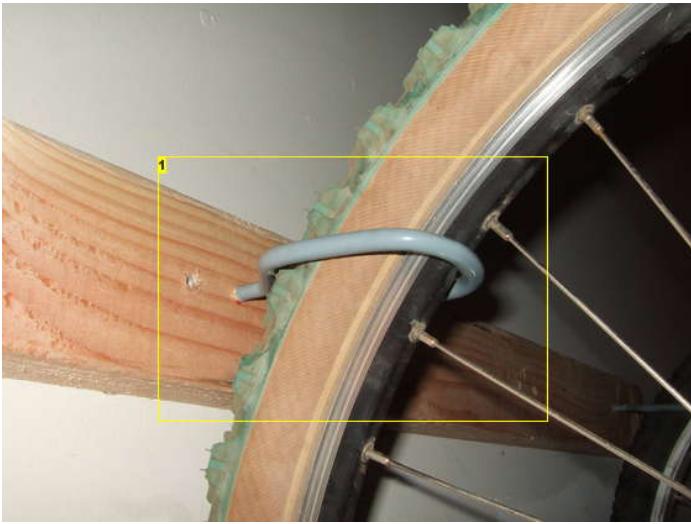
### Image Notes

1. 5 bikes in 5-feet of wall, no tangling!

## step 3: put in the hooks

pre-drill holes for the metal hooks so you don't split the wood.

on the cheaper hooks the plastic wears off fairly quickly with use and then it will damage your rims. to fix this forever you can wrap the hook with a piece of a blown innertube, or some vinyl tubing.



#### Image Notes


1. wrap hook with a piece of innertube for longest-lasting protection for your rims


## Related Instructables


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## Comments


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 **jsf.online** says: Oct 20, 2006. 6:41 PM [REPLY](#)  
Looks almost identical to what i put in our garage four months ago. One addition, particularly for a rental property: Add some clear plastic between the bike tires and walls so as to keep the wall from getting marked up. You can get rolls of thick plastic, or use the plastic that is sold for in cheap-inceiling flourescents, either way, protect the paint and just hold it up with a couple of staples, or even between your 2x4s and the wall. Not having to paint it when you're done will be a plus.

 **corrieann** says: Jan 20, 2009. 12:42 PM [REPLY](#)  
or! take advantage of all those plastic bags under your sink and create a large 'fused plastic bag' sheet to hang on the wall, under the tires :)

 **Tat2** says: Aug 1, 2007. 8:21 PM [REPLY](#)  
Great idea, I've hung my bikes (4 of them) exactly like this. However I just read somewhere that hanging them by the front wheel can damage the fork/headset. I just took them off and turned them around hanging them from the rear wheel.

 **callmeshane** says: Mar 1, 2008. 5:57 AM  
(removed by author or community request)

 **leebryuk** says: Mar 31, 2008. 7:37 AM [REPLY](#)  
Not a problem. Many a bike shop do there displays like this. It saves a lot of space. You have to remember that static forces are easy to deal with. The dynamic forces are far more challenging. Every time you double your speed you increase the force exerted by 4 times. And then there are the lateral and compressive forces to deal with.  
  
So the last thing to worry about is the headset being strained.

 **johnnyshaman** says: Mar 20, 2008. 1:18 PM [REPLY](#)  
Definitely a "why didn't I think of this?" idea. I used to have 23 bikes (for 2 people) hung in similar double row, but I didn't have as structured as nice.  
  
Thanx for the Instructable





**arwendraugh** says:

Awesome...you fixed my big space problem  
Thanks

Jan 31, 2007. 8:54 PM [REPLY](#)



**hollasch** says:

I've always wondered if suspending bikes this way can detrue the wheels. Should I be concerned about this for my kids bikes or my mountain bike?

Oct 20, 2006. 11:37 PM [REPLY](#)



**dan** says:

we have not had any problem (and i know a lot of bikes beyond the ones here being hung this way), although see the note about putting some rubber around the hook.

Oct 21, 2006. 12:08 AM [REPLY](#)



**Visitor** says:

In my building the bike storage room has commercially built hooks to which bikes are hung from the stem (wheels on the outside, the opposite way compared to how you did it). This requires that the hook (or actually two side by side hooks) are brought about 30cm out from the wall so that cables are not squeezed against the wall. Solves any possible wheel deformation problem.

One could modify that design so that the hooks are fastened on a metal track on which they can be slid sideways to optimize space and to make removing of bikes from the middle possible (dan can't get the top bikes out without tangling them to the lower handle bars)

Jan 9, 2007. 12:19 PM [REPLY](#)



**Remote Man** says:

Awesome. its so simple, yet so cool.

Dec 19, 2006. 7:35 PM [REPLY](#)



**Oblongata** says:

Might you be able to pack them tighter if you alternate hanging the back wheel and front wheel (so the handlebars don't overlap)? This would probably work well with your double-tier design so the the bars and saddles don't interfere. Just a thought.

Wicked wobble bike btw.

Dec 6, 2006. 6:13 PM [REPLY](#)



**trebuchet03** says:

bugger... my new bike has a wheelbase of 61" (and 27" wheels). I wonder if I can even put this bike upright in my apartment...

very good idea though :)

Oct 20, 2006. 2:56 PM [REPLY](#)



**cliplless** says:

I thought I recognized that wobble bike. This idea couldn't have come at a better time. My roommate and I were just wondering how we could store our quiver of bikes.

Oct 20, 2006. 2:34 PM [REPLY](#)



**Junkernaut** says:

Super smart idea.

Fitting them together like that is most effective method ive seen.

Oct 20, 2006. 12:10 AM [REPLY](#)