

The High Writer

by **resistor** on July 25, 2006

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Intro: The High Writer

NYC writer KATSU demonstrates the functionality of the latest tool from the Graffiti Research Lab: [The High Writer](#) . Drawing on previous paint-pole designs from innovators like [Barry McGee](#) and the [Citizens Against Ugly Street Spam](#) , the High Writer is a tool that amplifies the scale and height of marks rendered with a spray can. The high writer is easily constructed from materials available at Home Depot and your local bike shop. All praise be to the [Eyebeam R&D OpenLab](#) .

To view high writer photos on flickr [Click here](#) .

Benefit Art Show and Auction for Daniel McGowan

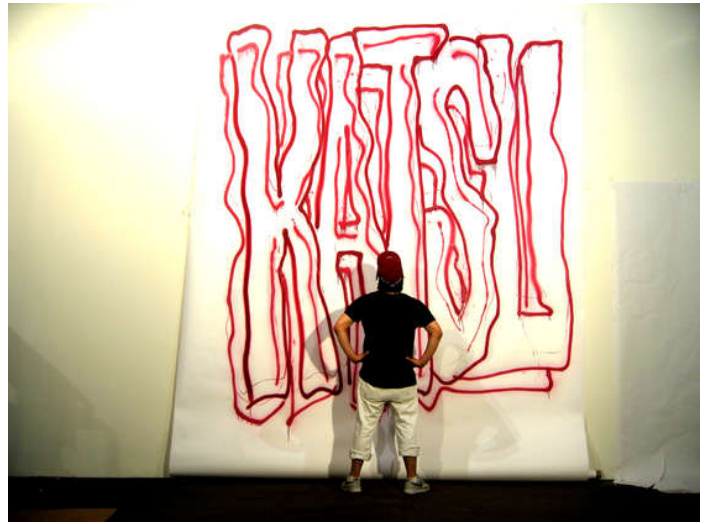
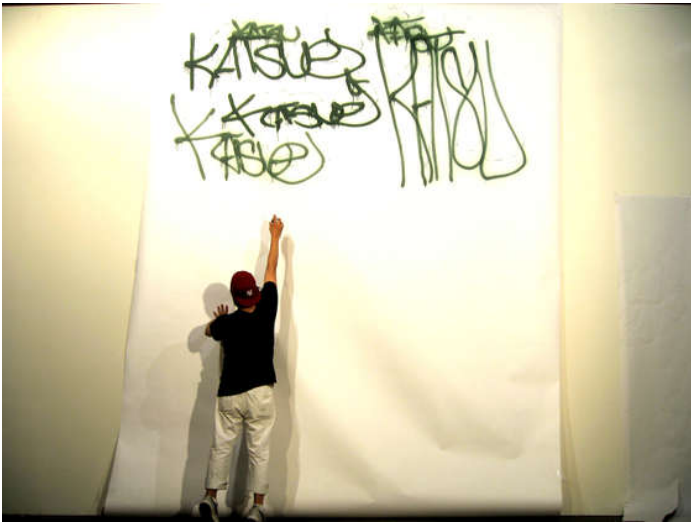
The prototype High Writer will be auctioned off at the ["If They Come for You in the Morning"](#) Benefit Gallery Show for Daniel McGowan hosted by [Visual Resistance](#) . All proceeds from the show will benefit the legal fund of environmental and social justice activist Daniel McGowan.

Thursday, July 27 & Friday, July 28, 2006, 5-10pm
[ABC No Rio](#) , 156 Rivington St, Lower East Side, NYC

Art Auction on Ebay

The AMERIKA1 mural by KATSU pictured in the video is currently up for bid on ebay. [Click here to place your bid](#) . Now lets learn how to write naturally high.





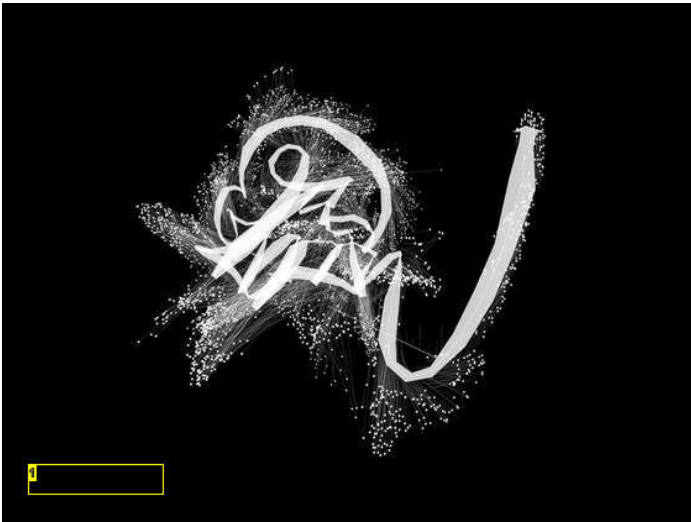


Image Notes

1. KATSU Graffiti Analysis

Step 1: Parts, Materials and Tools

Parts:

All of these parts can all be purchased at the local Home Depot or art supply store. Look for the bike parts at used cycle shops.

Hardware store

- 12-15 foot painter's pole
- 3 pole extension set
- Paint edger attachment
- Handyboard sheet
- Balsa wood blocks
- 2-inch #8-32 bolts, nuts and washers
- 2.5-inch #8-32 bolts, nuts and washers
- 3/4-inch #8-32 bolts, nuts and washers
- 1-inch #8-32 bolts, nuts and washers
- 3-inch 360 swivel coaster
- 3-inch C-clamps
- Transparent tape
- JB Weld
- 5-minute epoxy

Bike shop

- Bike V-Brake system: hand lever, bike cable and one brake arm/pad
- bike water bottle holder

Art store

- Spay-paint can
- NY fat caps

Tools:

- Mitre box
- Mitre box saw
- screwdriver set
- pliers
- box cutter
- hex key set
- measuring tape
- cordless drill and 13/64th drill bits

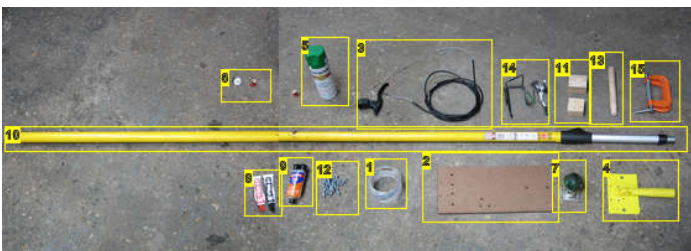
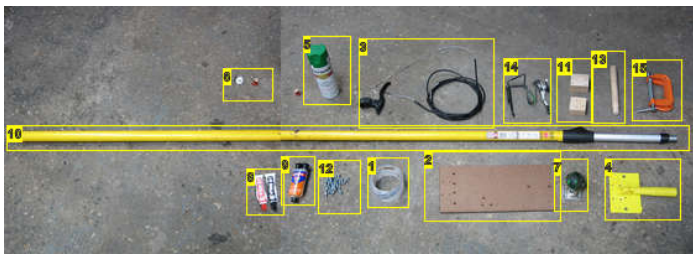


Image Notes

<http://www.instructables.com/id/The-High-Writer/>



1. Scotch transparent tape
2. Handyboard
3. Bike brake hand lever and brake cable
4. Paint edger attachment
5. can
6. NY FAT Caps
7. 360 swivel coaster
8. JB WELD
9. 5-minute epoxy
10. 12-15 foot telescoping painter's pole
11. balsa wood riser blocks
12. #8-24 bolts and nuts of varying lengths
13. Threaded six-inch extension pole
14. Shimano brake arm and pad and bike water bottle holder
15. three-inch C-clamps



Image Notes

1. pliers, screwdrivers, box cutter, hex key set
2. Mitre box saw
3. drill and measuring tape

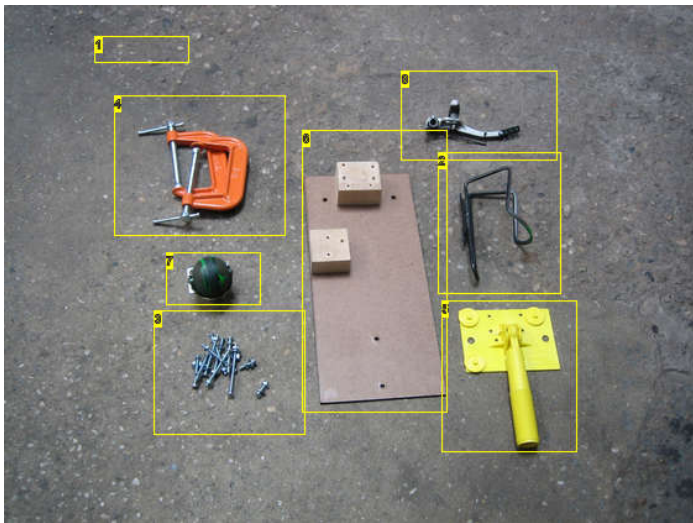


Image Notes

1. And the GZA happens to for the head
2. water bottle holder
3. #8-32 bolts, nuts and washers
4. C-clamps
5. edger attachment
6. 6-inch x 13.5-inch Handyboard, pre-drilled with balsa wood riser blocks
7. 3-inch 360 swivel coaster
8. V-brake arm

Step 2: Make the head

If you're going to make the High Writer you might as well start with the head. The head consists of the water bottle holder that secures the paint can, the mechanisms that spray the can and counter-weights.

Fabricate the Head

First you must fabricate the wood risers and support panel.

1. Download this PDF file and print it actual scale. Use it as a template to help you (a) cut a 6-inch by 13.5-inch panel out of the 1/8th-inch handyboard and (b) drill a number of holes using a 3/16th or 13/64th drill bit.

2. Cut two riser blocks from the balsa wood using a mitre box and saw.

The wheel riser block will be:
2.35-inches x 2-inches x 1.35-inches

The brake arm riser will be:
2-inches x 2-inches x 1.2-inches

3. Using the holes in the panel as your template, mark and drill matching sets of holes in the riser blocks.

<http://www.instructables.com/id/The-High-Writer/>

Assemble the head

Use the #8-32 bolts and nuts, using washers where appropriate, to attach both risers, edger attachment, brake arm and water bottle holder. If your water bottle doesn't line up with the generic holes in the template you will have to experiment with the location of the bottle once you assemble the rest of the head. You can leave the actual brake pad on the arm use it as the contact point with the spray-can cap, or you can make your own contact surface like we did with a 2-inch x 2-inch piece of 1/4-inch Plexiglas. Check the attached images and photo notes for more specific info.

Tighten the C-clamps down on the bottom of the support panel as pictured. This help the system stay flush to the wall.



Image Notes
1. head

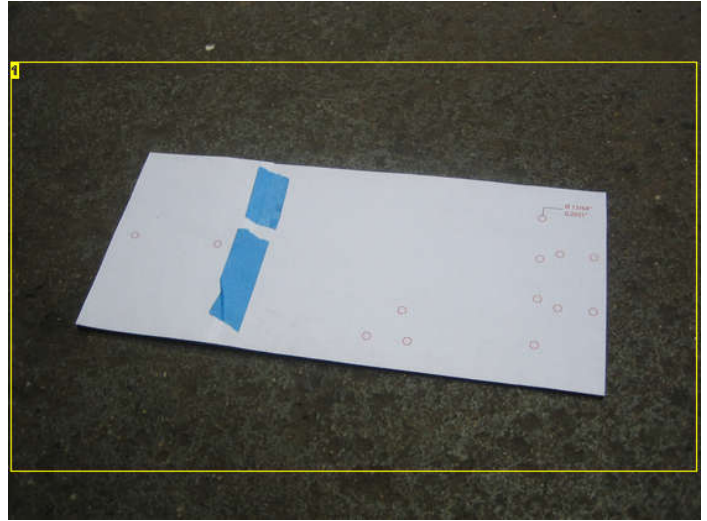


Image Notes
1. This is the template taped on top of the handyboard. You can use the template to drill the holes and draw out the general shape and size of the support panel



Image Notes
1. wheel risers



Image Notes

1. the paint can is taped so that it can rest securely in the oversized water bottle holder
2. tape on the can allows it to rest securely in the oversized water bottle holder
3. brake arm riser
4. water bottle holder



Image Notes

1. add counter-weights so the head will naturally hangs normal to the wall. Thi

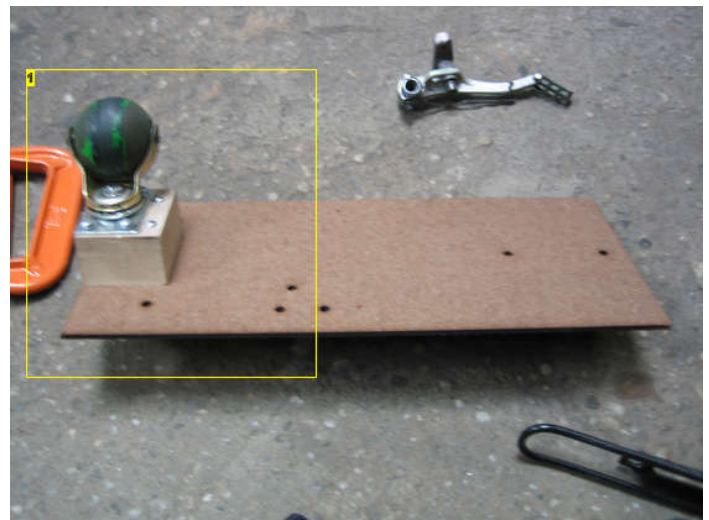


Image Notes

1. caster and risers. I used 4 #8-32 to attach the wheel to the riser, the riser to the support panel and the paint edger to the whole system as shown.

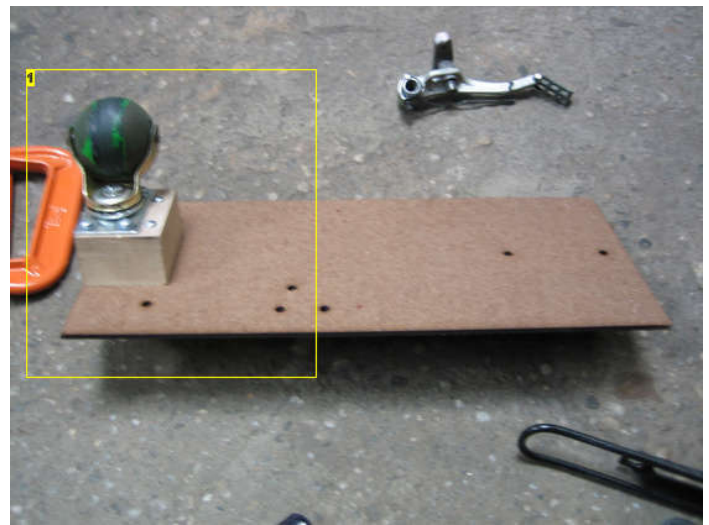


Image Notes

1. paint edger attachmet -- Use two 3/4-inch bolts with washers and four 2 inch bolts with washers. The wheel riser must be mounted at the same time as the paint edger.

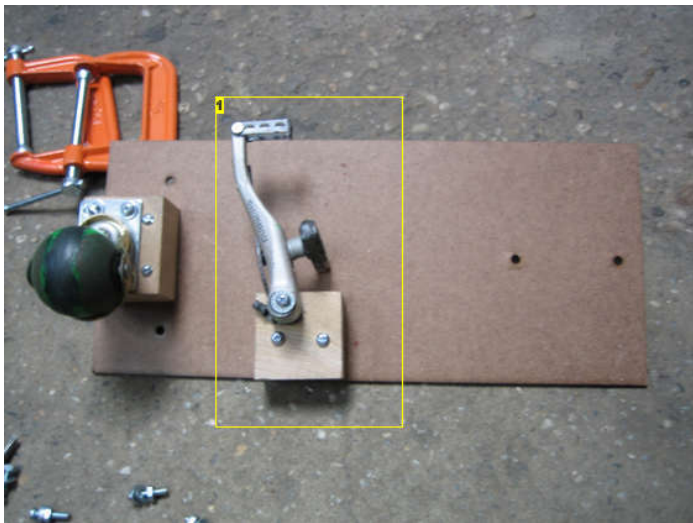


Image Notes

1. attach brake arm and brake arm riser. use 2 2-inch bolts to attach the riser to the support panel. Use the 2.5-inch bolt to attach the brake arm to the riser and support panel.

Step 3: Make the tail

Fabricate the Tail

To build the tail and connect it to the head you will need to fabricate a few parts: the cable, the hand lever and the cable constraints.

1. To make a night writer with a full extension of less than 10-feet you can just go to your local bike shop and ask for a tandem bike brake cable. For lengths greater than 10-feet, I don't know any way other than to make your own cable. (a) Get your local bike repair guy to cut you as much bike cable housing as you got pole to extend. (b) Cut the end connector features at either end of an old bike break cable. (c) Go to the Home Depot and get 1/16th or smaller aircraft cable and JB Weld. (d) Go get a coffee. save the stirrer. (e) Slide your aircraft cable into the cable housing. Experiment with your pole in order to get the right length of housing and cable. (f) Mix the two part JB Weld with the coffee stirrer. Scoop up some of the epoxy into the stirrer. Cut a small section of the epoxy filled stirrer around a 1/4-inch in length. Stick two ends of aircraft cable or bike break cable into the two ends of the stirrer. Let the connection dry for at least 12 hours before use.

Assemble the Tail

2. To make the hand lever that controls the spray-can remotely, you simply need to slide the bike lever over the base of the extension pole and connect the bike cable to the hand lever using the round retention feature on the end of the cable. If you are using a smaller diameter pole, less than 1-inch, this will not be a problem. For those using larger diameter poles (1" dia. or larger), you will need to modify the pole. I modified my Mr. Long Arm painters pole, by removing the rubber grip at the end. This reveals a hollow cavity inside the pole. I epoxied a threaded junction inside this inner cavity and screwed-in a cut section of 0.90-inch diameter extension pole. The hand lever slides easily over this small section of extension pole.

3. For the bike cable to work, you will need to secure the cable housing at a minimum of two locations: the top and bottom of the pole. While a number of ways exist to constrain the cable housing, I use transparent tape. Just wrap the housing and pole with tape. Remember to leave a service loop so the telescoping pole can extend to its full length. Check out the attached images to get more details.

4. Once you have welded the cable to its intended length, attached the hand lever, inserted the cable retention feature into the lever and constrained the cable housing, you can insert the other cable retention feature into the brake arm. You should initially leave a good deal of slack in the cable so you don't inadvertently trigger the paint can during assembly.

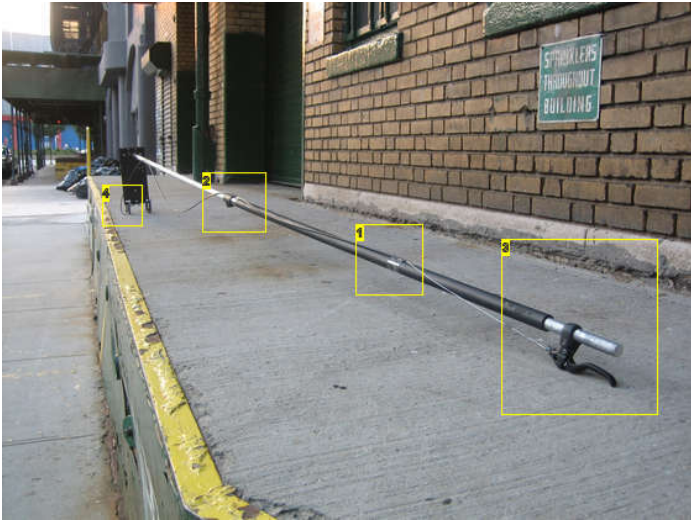


Image Notes

1. tape cable housing constraint
2. cable housing constraint
3. Hand lever
4. cable housing constraint

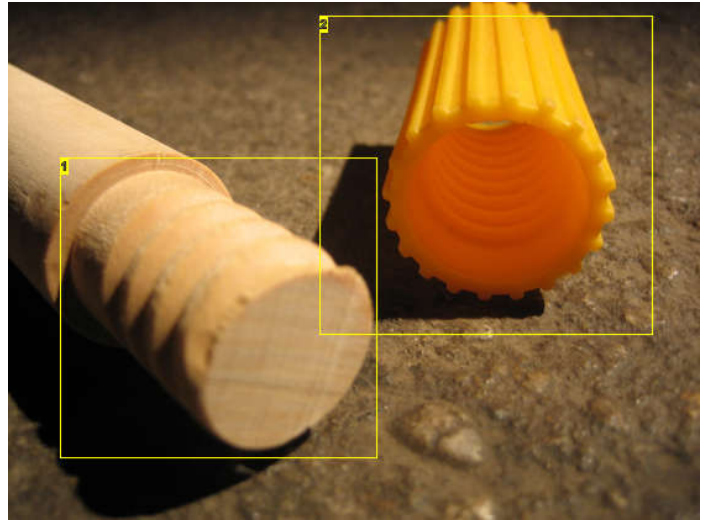


Image Notes

1. Threaded extension pole
2. Tapped extension pole junction. I epoxied one of these inside the cavity in the tube and screwed in the adjacent section of pole, on which the hand lever can be attached.

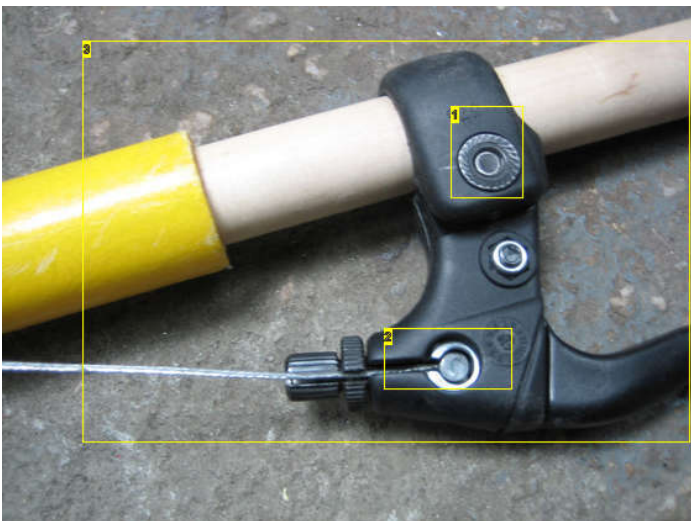


Image Notes

<http://www.instructables.com/id/The-High-Writer/>



Image Notes

1. Tighten hex nut to allow you to adjust the tension on the cable
2. Cable retention feature inserted into the hand lever
3. Hand lever on extension pole

1. low tech cable constraint



Image Notes

1. You must constrain the cable housing at the top of the high writer on the C-clamp to allow the system to work

Step 4: How to write high

Before you use the High Writer to communicate your message on a large scale, you will need to: practice writing with the high writer, prepare and load a spray-paint can and fine tune the bike cable and hand lever to make sure you can spray the can by squeezing the lever. If the cable is too tight it will trigger the can to spray inadvertently. If it is too slack, it won't trigger at all when you squeeze.

Preparing and Loading a Spray-Paint Can

To prepare a spray-paint can, you need to make a ball of transparent tape. You can then tape the small crumpled ball of tape to the front of the paint can. Then continue to wrap the paint can with transparent tape until it looks like the paint can is pregnant on one side. This tape is needed to thicken the can and thus secure it in the water bottle holder that is slightly over-sized relative to the can. The paint can should go into the water bottle holder with the tape lump pointing toward the front.

High Writer Calibration

The High Writer can be fine tuned by loosening the hand lever hex bolt and sliding the lever along the length of the pole. The opposite end of the cable should be secured by the retention feature on the brake arm. This should increase and decrease tension on the cables Experiment with the right amount of tension necessary to trigger the can to spray when you pull the handle.

Using the High Writer

In order to use the high writer you should treat it like a giant paint brush. The swivel wheel allows you to rest the majority of the weight of the High Writer against the wall. You don't need to lift the wheel off the wall to most efficiently operate it. You just release the hand lever when you want the writer to stop spraying.

Good Luck.

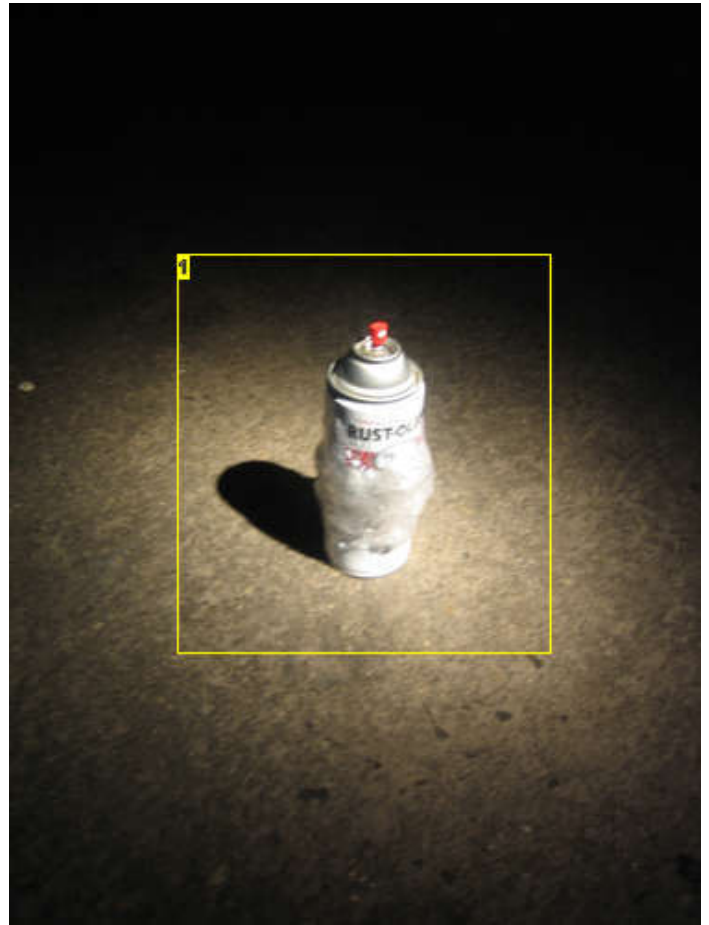


Image Notes
1. spray-paint can wrapped in tape

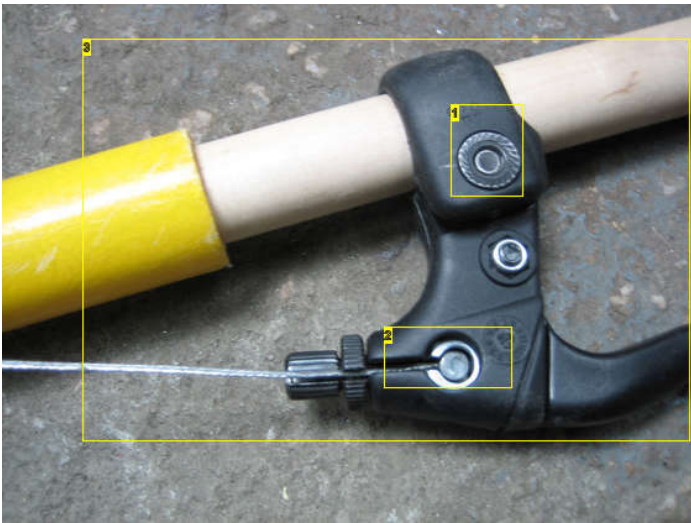


Image Notes
1. Tighten hex nut to allow you to adjust the tension on the cable
2. Cable retention feature inserted into the hand lever
3. Hand lever on extension pole

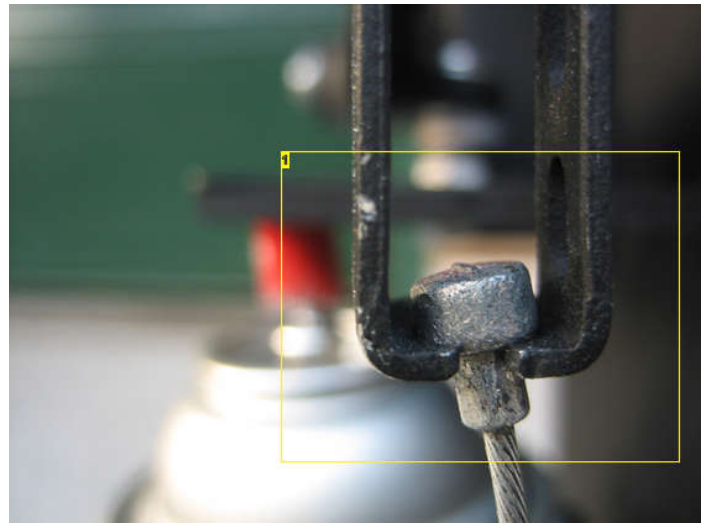


Image Notes
1. retention feature on cable inserted into the brake arm at the top of the high writer

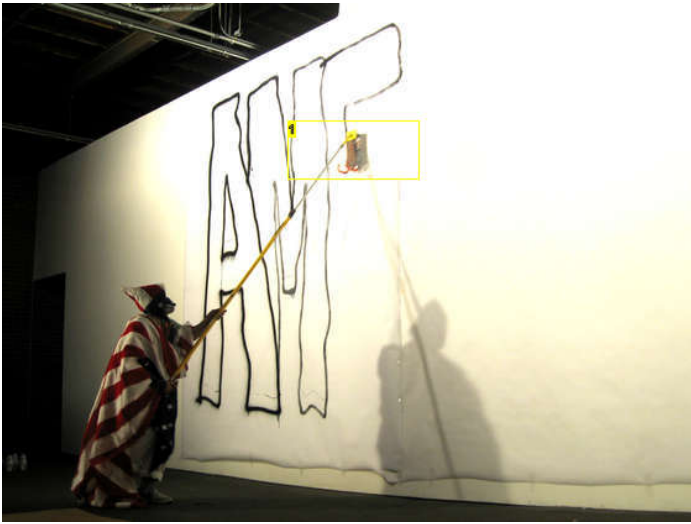


Image Notes

1. the swivel wheel is placed on the wall, lightening the load and allowing the high writer to roll around.



Image Notes







1. wheel risers



Image Notes


<http://www.instructables.com/id/The-High-Writer/>


Related Instructables

 <p>How To Start Your Own Graffiti Research Lab by fi5e</p>	 <p>PROJECTION BOMBING by fi5e</p>	 <p>Electro-Graf by Q-Branch</p>	 <p>LED Throwies by Q-Branch</p>	 <p>All Surface LED Throwies by SniperNinja</p>	 <p>How to Go Postal by Q-Branch</p>
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Comments


[29 comments](#) [Add Comment](#)

 **Valche** says: Nov 21, 2009. 2:21 PM [REPLY](#)
I don't get why people are assaulting the comment box, but I think this really shows an incredible degree of ingenuity and artistic passion. Go for it man, I hope to see some high-rise art in Philly. Great work.


 **EnigmaMax** says: Jun 25, 2008. 2:47 PM [REPLY](#)
put a butane torch on the end. be good for hunting ducks, you wouldn't need to shoot them, just pick them up and eat 'em!

 **Valche** says: Nov 21, 2009. 2:18 PM [REPLY](#)
Lol.


 **patdoherty** says: Nov 2, 2008. 10:15 PM [REPLY](#)
it is simply art there should not be this much debate on it and in many places austria places in france for example this is totally legal


 **spiker** says: Sep 13, 2008. 10:45 AM [REPLY](#)
Graffiti is another form of "freedom of press, expression, etc." that the first amendment gives to us, so everybody may say what they like on this instructable, cause you have that right, but when you start hurting feelings you don't have that right. so be kind and don't be un-patriotic you greedy, selfish single-minded people. nice instructable though, don't think it will be easy for transport though. :D


 **lan01** says: Jul 27, 2006. 10:36 AM [REPLY](#)
What are fat caps?

 **Full Frontal Graphic** says: Mar 23, 2008. 5:34 PM [REPLY](#)
Generically, 'fat caps' (or graf caps) are spray can nozzles modified for different spray patterns... fat cap in the nongeneric sense is a cap with a nozzle that sprays a wide line

 **LIVINGDEAD247** says: Nov 2, 2007. 5:35 PM [REPLY](#)
WOULD IF THE WORLD HAD NO ADVERTISING JUST ART? Ibanezfoo is clue less. kicking some body in the balls makes you a criminal jast as much or more than a graffiti righter.

 **ghostgang** says: Feb 4, 2008. 6:28 PM [REPLY](#)
lol

 **Ibanezfoo** says: Oct 13, 2006. 6:13 PM [REPLY](#)
What I like about this is that it keeps the criminals preoccupied and his hands busy so I am free to come up behind them and kick their balls up through the top of their head for tagging something that doesn't belong to them. Fun indeed.

 **Digi** says: Dec 11, 2006. 11:57 PM [REPLY](#)
I love how the haters get so angry about this...the funny thing is that they have no idea of the difference between gang tags and graffiti art.



Ibanezfoo says:

Dec 23, 2006. 12:17 PM [REPLY](#)

If you are painting on something that does not belong to you, or you were not contracted to do it, there is no difference. If you are painting something that you paid for, something that actually belongs to you, have at it. Art is subjective, and some of us "haters" think your "art" looks like crap and do not want to look at it all over our buildings.



Jesus1055 says:

Dec 23, 2006. 2:58 PM [REPLY](#)

Stop being such a douch. You bitched about my exhaust thing, and now this. Just deal with the fact that you can't control society, unless you decide you want to threaten or kill people. once again, you sir, may go F**k yourself



diydude says:

Aug 26, 2007. 11:06 PM [REPLY](#)

Hey "jesus"- It looks like you seem to have an identity problem. Why have you decided to call yourself Jesus? Do you value the real Jesus? Those who do would never speak to anyone as you just did. Chew on that for awhile.



Ibanezfoo says:

Dec 23, 2006. 10:45 PM [REPLY](#)

So tell me, what makes you think you can roam around in society vandalizing other peoples' property, and disrupting others' peace and quiet? Did you once ever stop and think that maybe people don't want to look at your crap or listen to your obnoxiously loud vehicle? Did the universe suddenly start revolving around you? Attitudes like yours will eventually land you in jail.



Bicyclette says:

Jun 5, 2008. 11:15 AM [REPLY](#)

It's **Steal** dipshit. Not **steel** . That is a type of metal.



master-of-chaos says:

Mar 28, 2007. 5:31 PM

(removed by author or community request)



Pumpkin\$ says:

Apr 7, 2008. 5:50 PM [REPLY](#)

ya dude no lemmings!



zomgzinjaz says:

Feb 23, 2007. 8:26 PM [REPLY](#)

what about the corporate vandalism we all live with everyday? The billboards, signs on buses, fliers and posters which litter walls and streets often put up with harmful glues? Why should a corporation like McDonald's have the right to decide what the aesthetic of our environment is? Do you really want to look at garish and unsightly advertisements which demean our intelligence and objectify us? Did the universe suddenly start revolving around advertising? Attitudes like yours have put us in the social and economic positions we are now.



master-of-chaos says:

Mar 28, 2007. 5:26 PM [REPLY](#)

amen brother iv bin saying the saim thing for years



jackknifebigrig says:

Feb 12, 2007. 6:18 PM [REPLY](#)

what makes you think that you could kick anyone in the balls when there doing something thats more fun than what your doing



Jesus1055 says:

Dec 24, 2006. 10:24 AM [REPLY](#)

First off, I dont spray paint walls, thought I'd clear that up. and, attitudes like mine will land me in jail? well thinking that the world should be perfect and should conform to everyone elses standards isnt going to get you anywhere



BUST says:

Sep 28, 2006. 9:45 PM [REPLY](#)

weooooow, gonna stick to 'em rooftops or my pot to get high



Spinergy says:

Sep 19, 2006. 11:11 PM [REPLY](#)

Having to tape up the can is a big time waster. Replace the water bottle holder with a small platform to support the can [think scrap of wood], and use a velcro strap to hold the can in place. This also makes it quick change for different colors.



JMK says:

Aug 28, 2006. 12:02 PM [REPLY](#)

Super ILL production! This will keep the buffing at bay, plus you could maybe add a multiple can holder/sprayer, so you could get triple the outline or fill lots of fun!!!!!!



coyote says:

Aug 25, 2006. 9:39 PM [REPLY](#)

I'd replace the tape buildup to hold the spraycan snug with loops of bike innertube or surgical tubing. It wouldn't have to be redone each time you needed to reload and it would make it easier to get the nozzle in the same position each time



blksheep says:
Impressive piece. You guys keep surprising me.

Aug 21, 2006. 10:57 PM [REPLY](#)



seven13 says:
There from Montana Gold. www.montan-paint.com

Jul 28, 2006. 10:04 PM [REPLY](#)



antirem says:
heh.. cool

Jul 26, 2006. 5:46 PM [REPLY](#)
