How to get a rope into a tree (without climbing it)

by **vitex** on July 4, 2008

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intro: How to get a rope into a tree (without climbing it)

So you have a sixty foot tree in your backyard with a branch that's just begging to be used for a swing. Except, unlike me, you're not an arborist and you're afraid of heights. Well - allow me to share an industry trick with you that will allow you to set a rope way up in a tree and get it out after.

If you know any arborists, you will notice they look **up** a lot. There is a reason for that - arborists, unlike most other mortals, are very interested in things falling on them. So should you be. If you're about to throw a rope in a tree, have a good look at the tree first. **If there are any dead or broken branches up there, get a professional arborist to make the tree safe!**

In the USA (or anywhere else) I recommend you use an arborist who is a member of the International Society of Arborists (ISA) or the local national body - in New Zealand, NZAA, in Australia, ISAAC etc.

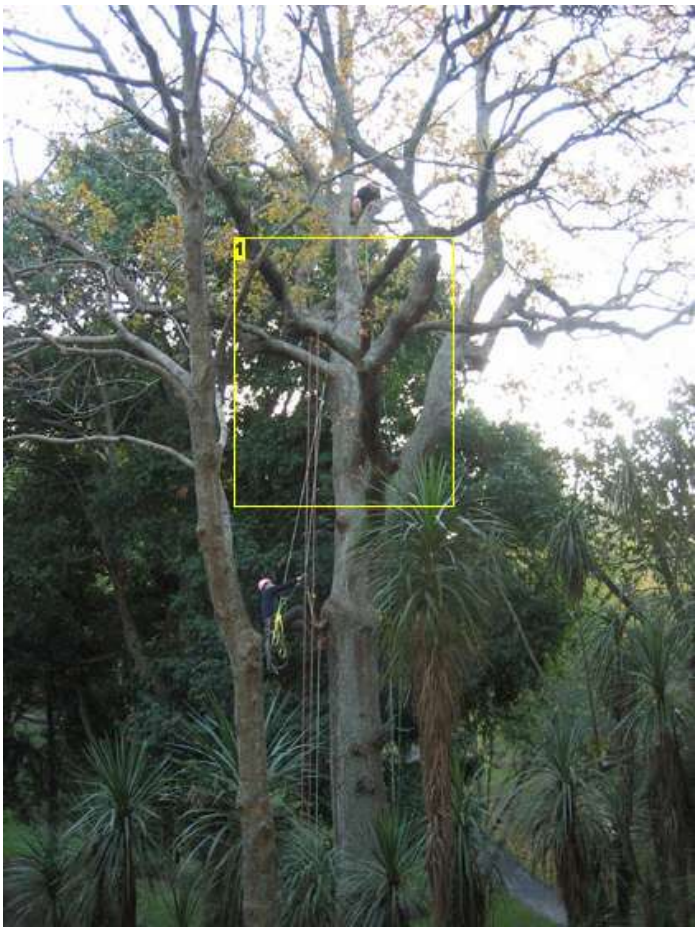


Image Notes
1. Both rope systems in the tree were installed from the ground

step 1: What you need

This instructable is written from an arborist's point of view.

Have a look at this related link How to Climb a Tree (with prussiks!) - I am working on another instructable on tree climbing too :)

To set a rope in a tree you will need the following:

A rope
You need a rope twice as long as the branch is high (ie if the branch is 12m off the ground you need at least 24m of rope). You'll figure out why. **Do NOT** compromise on the quality of this rope - your life depends on it. Go for a polyester or poly-blend rope that has sufficient break-test to support your life. The **IDEAL** rope will be a rated, arborist's climbing line which will have a break test of around 5400lbs or 2700kg. There is plenty of yachting rope around that is strong enough - it just isn't break-tested. Polypropylene rope is also very strong - it's just a bitch to work with. OK for a swing, but not for climbing on.

A throw-line
This can be a commercial arborist's throwline (like Zing-it) or monofilament nylon or even sash cord or string. Basically, a thin, slippery cord that you can throw over a high branch. Good-quality throwline is easier to throw and less frustrating, and not highly-expensive, but you can cut costs here without compromising your safety.

A throwball
The best throwballs are made by commercial arborist's suppliers. Arguably the best throwballs are made by Andy Harrison in NZ (aaharrison@maxnet.co.nz) and you can order them via e-mail. They're not expensive, and they work really well. Throwballs are filled with lead shot so they're soft but fairly heavy.

If you're a **cheapskate** you can throw any heavy object you like over the branch. **I don't care if you choose to throw a piece of rail or an anvil - just remember when it comes down it can hurt you.** I am **not responsible** for damage that you inflict to your neighbour's glasshouse or Porsche.

A helmet
Wear a cycle helmet, a skate helmet, or a climbing helmet. Then the anvil falling on your head won't hurt as much.

A cambium saver
You don't really need a cambium saver. But if you're climbing in a tree and you want to set a rope, use one. It saves the bark, and it makes it easier to climb the tree, and it's easier on your rope. I'm just showing you the right way to do it. I appeal to your **deep-green moral conscience**.

A cambium saver is a rated load sling with two rated metal rings at either end (pictured). You can improvise one from a load sling or a loop of rope and carabiners, but make sure that everything you use is rated.

Gear advice - never scrimp and save on climbing gear. Find the best price for the good stuff. There are heaps of commercial websites. Start at www.petzl.com and work outwards.

Image Notes
1. A throwball. Soft but heavy
2. Throwline - I keep mine in a cheap plastic bucket

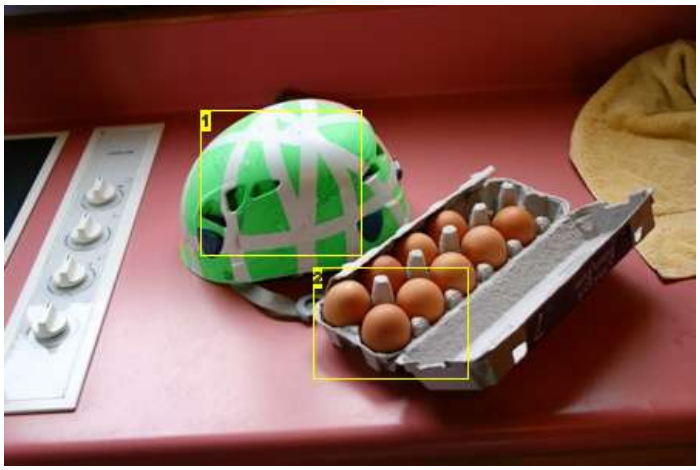


Image Notes
1. Petzl climbing helmet
2. Eggs in an egg carton. Yeah, I know it's a lame old visual metaphor

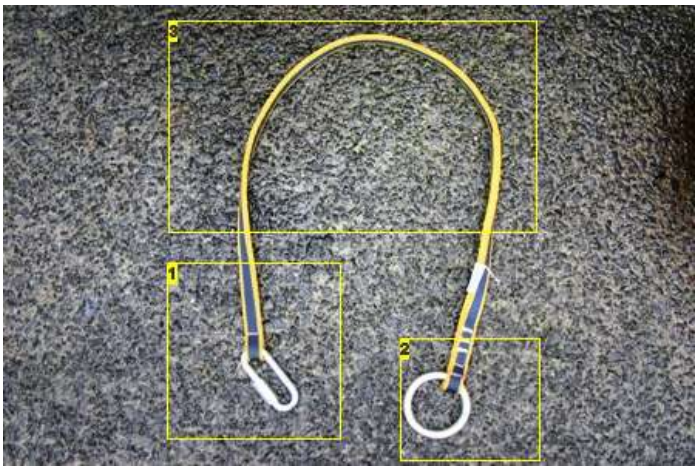


Image Notes
1. Small loop (most are round) - this Petzl one has a maillon rapide (a sort of screw-gate carabiner)
2. Big loop, on account of its relatively large size
3. Cambium saver. Come in different shapes and sizes. You can make your own, provided it is strong enough (use rated rope and rated hardware)

step 2: Get the cambium saver into the tree

Put the end of the throwline through the **BIG** loop on the cambium saver.

Attach the throwball to the end of the throwline. Any old knot will work, but there are good knots and bad knots. Do some internet research! You need a knot with a loop that can be easily undone later (like a shoelace knot).

Throw the throwball over the branch. With practice you can shy a throwball easily 20m / 60 ft. Practice in a place where nothing can get broken!! Your neighbour will not appreciate getting socked in the head by a 20g lead weight!

The weight of the throwball will bring it back down to the ground. For obvious reasons, keep hold of both ends of your throwline.

Put the weighted end of the throwline through the **SMALL** loop of the cambium saver.

Pull on the unweighted end of the throwline.

The cambium saver will now sail up into the tree and flop over the branch with the two steel loops hanging down.

Let go of the throwline.

The weight of the throwball will make it fall back down to the ground.

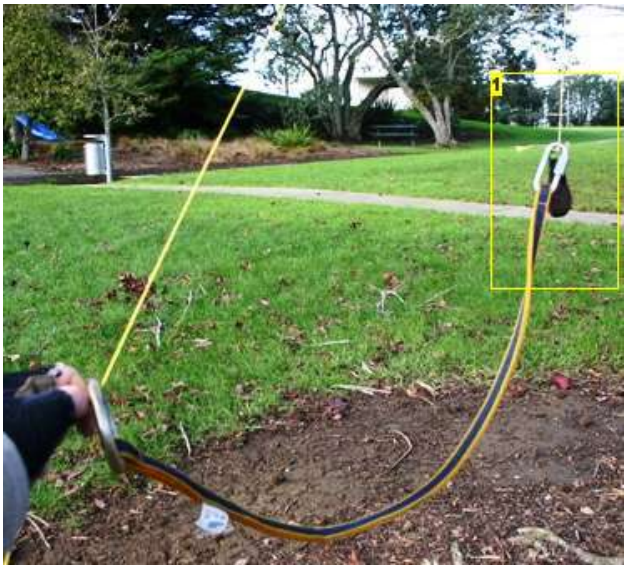


Image Notes
1. When you pull on throwline, the throwball will be pulled up and flop over branch

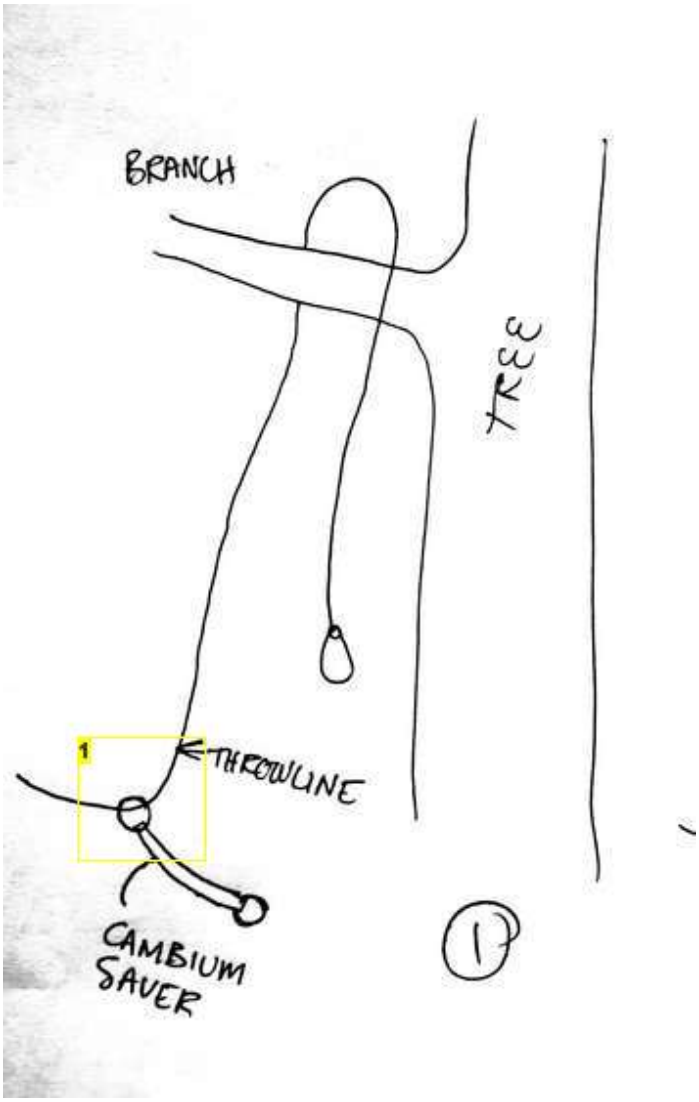
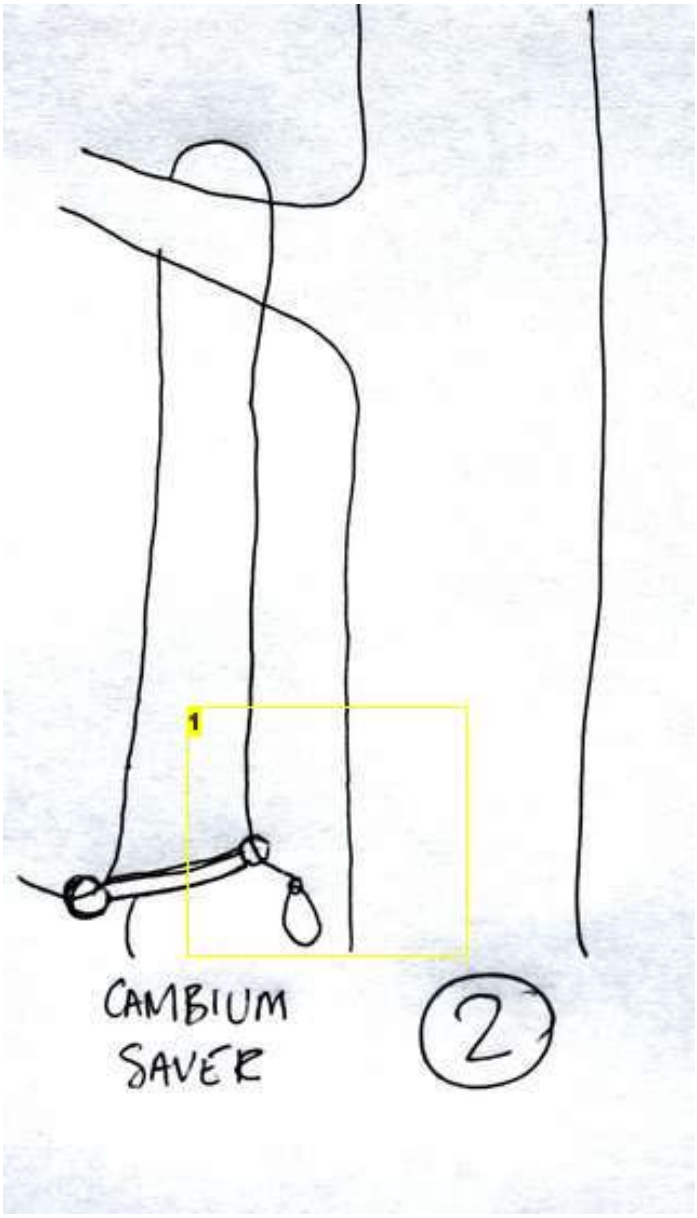


Image Notes
1. Important to put your throwline through the big loop of the cambium saver before you throw it up



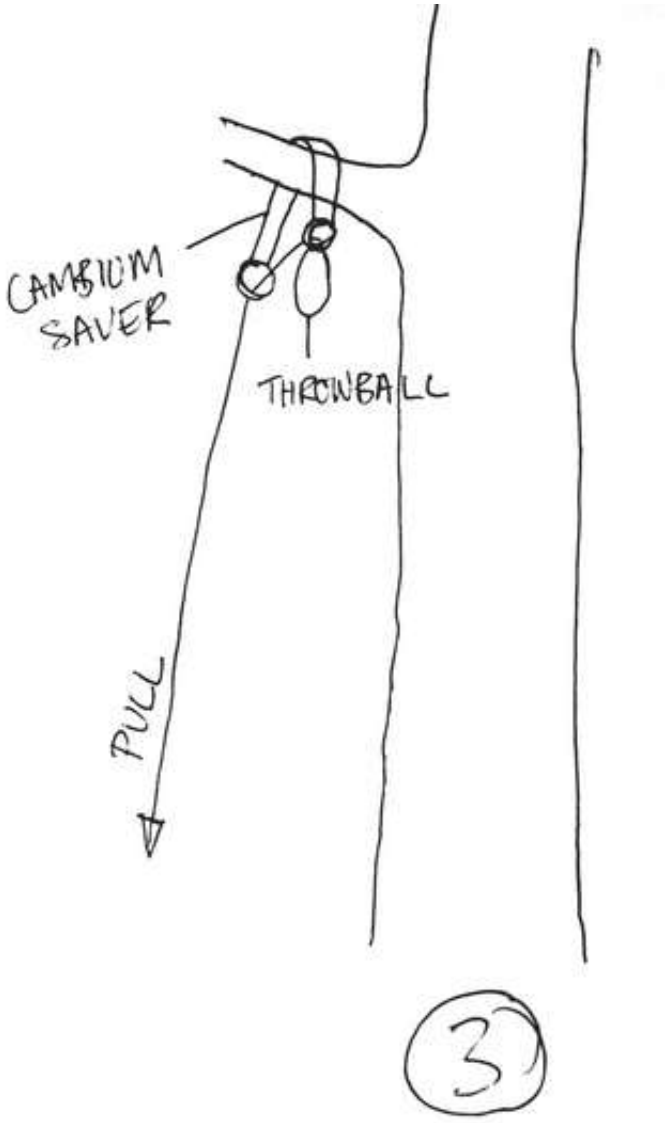


Image Notes
1. Step 2 - put throwline through small loop and re-attach throwball. Important to re-attach throwball

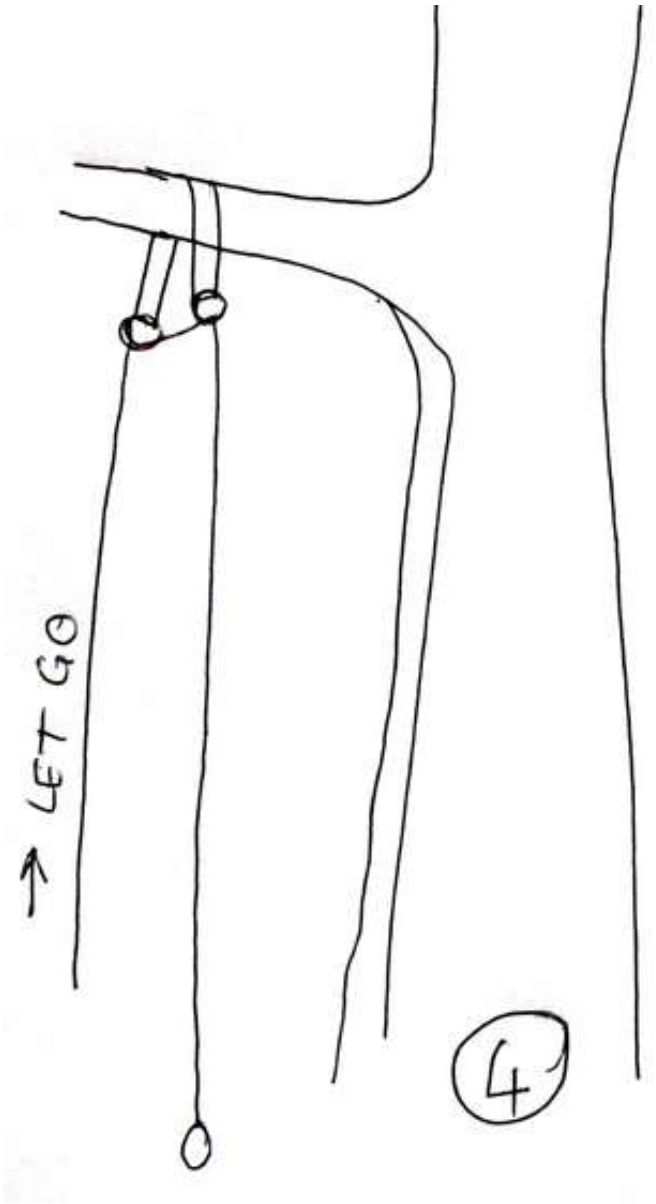


Image Notes
1. How it's supposed to end up. Now throwball should fall down under it's own weight

step 3: Get the rope into the tree

Now to get the climbing rope into the cambium saver.

Untie the throwball from the throwline.

The idea is to tie the climbing line onto the throwline so you can pull it up, through the **SMALL** loop of the cambium saver, through the **BIG** loop of the cambium saver, and back down to the ground.

To do this, tie the throwline to the climbing line about a foot from the end. There are lots of hitches that will work for this - research the topic online. Refer to the photos below too.

Now tie a couple of hitches towards the tip of the climbing line, with one hitch right at the tip. The idea is that the climbing line will follow the throwline up the tree, through the cambium saver loops, and back down to the ground. Got it, eh?

Pull on the throwline. The climbing line should run up, through the cambium saver loops, and back down. If it sticks at the small cambium saver loop, try setting the last hitch closer to the end of the climbing line.

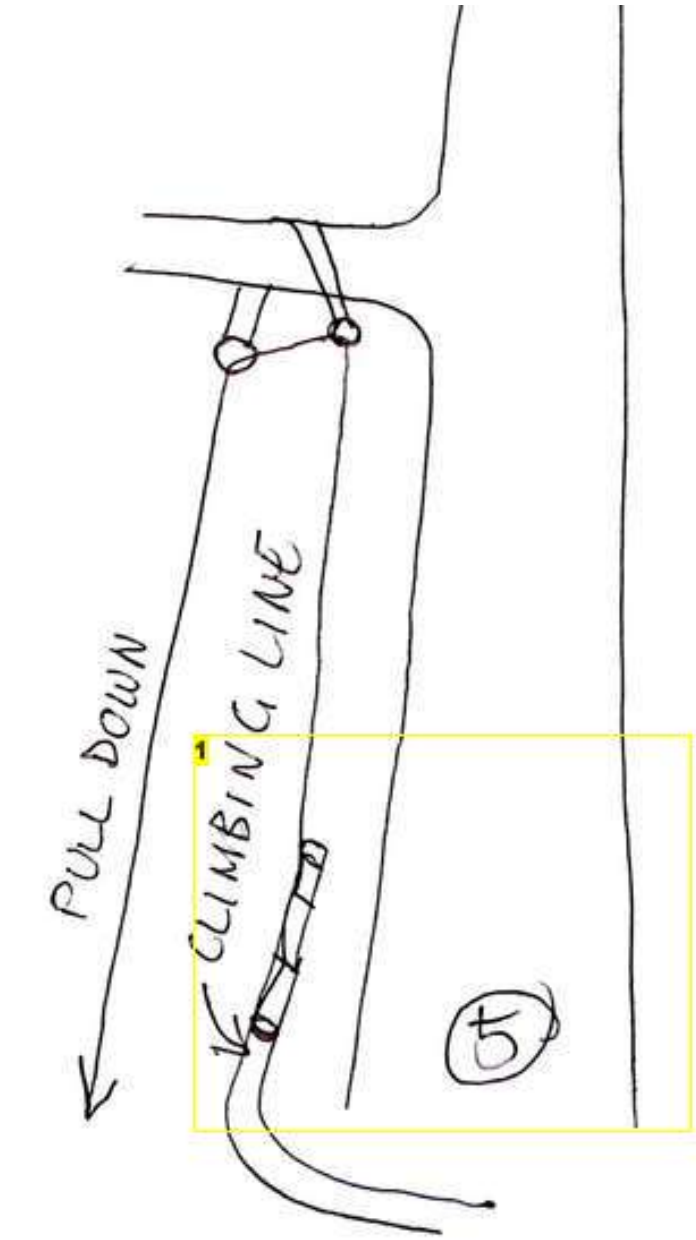


Image Notes
1. Step 5 - attach climbing line to throwline and use throwline to pull climbing line through both cambium saver loops and down to ground again

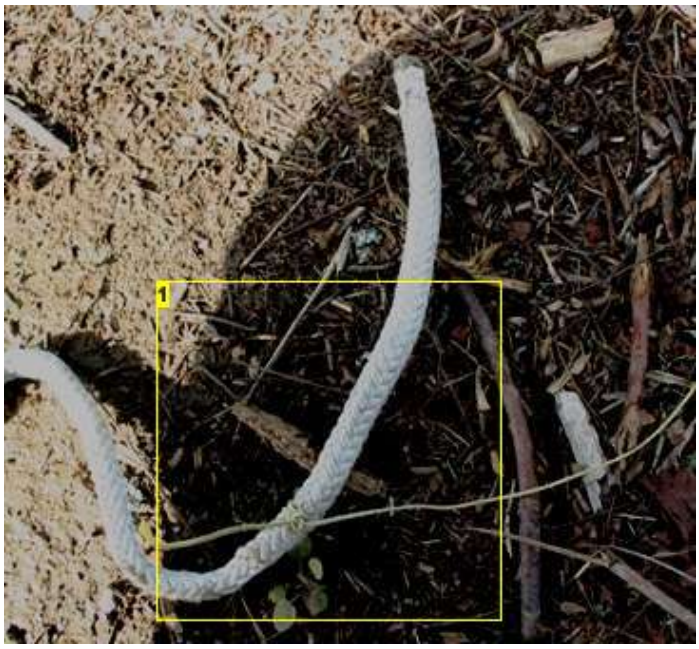


Image Notes
1. Tie throwline on about 30cm from end of climbing line using some sort of constrictor knot

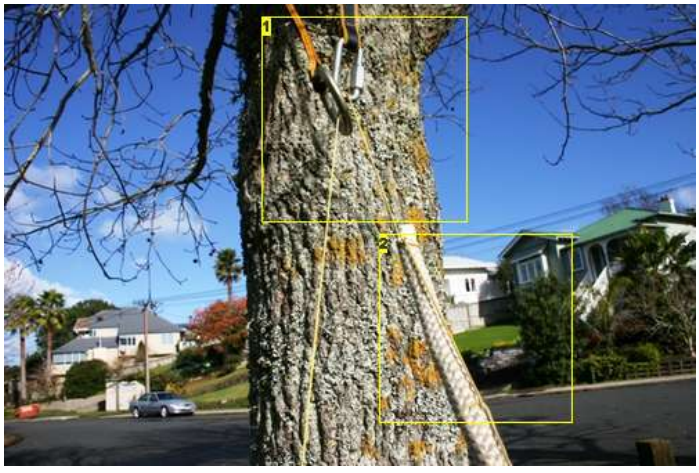
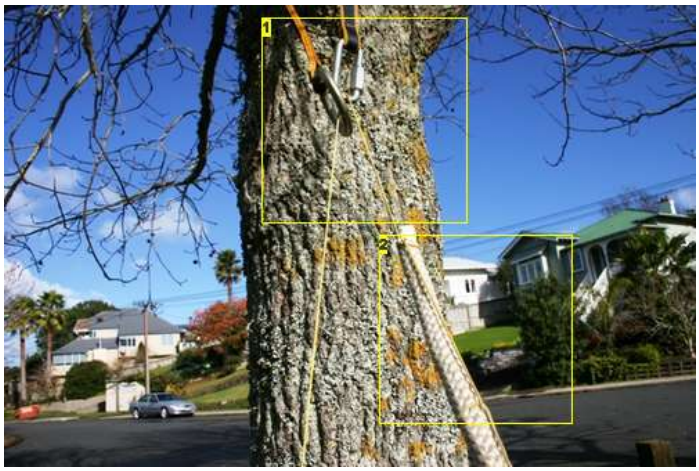


Image Notes
1. Up 'n over



2. Climbing line should follow throwline through the cambium saver and back down

Image Notes
1. Tie hitches to hold throwline along climbing rope

step 4: Where to from here?

Permanent rope
If this is going to be reasonably permanent swing, you can miss out the cambium saver and just set the rope over the branch. Then make a bowline in one end of the rope, slip the other end of the rope through, and pull it up into the tree. Now you will **HAVE** to climb the tree if you want to get the rope out again.
Because the rope is looped over the branch, it will re-set itself as the branch grows - no etiolation.

Climbing anchor
A rope through a cambium saver is the ideal anchor for climbing the tree. The friction of a rope over a branch can do permanent damage to the bark

Temporary swing
Attach a swing to both ends of the rope, and do whatever comes to mind.

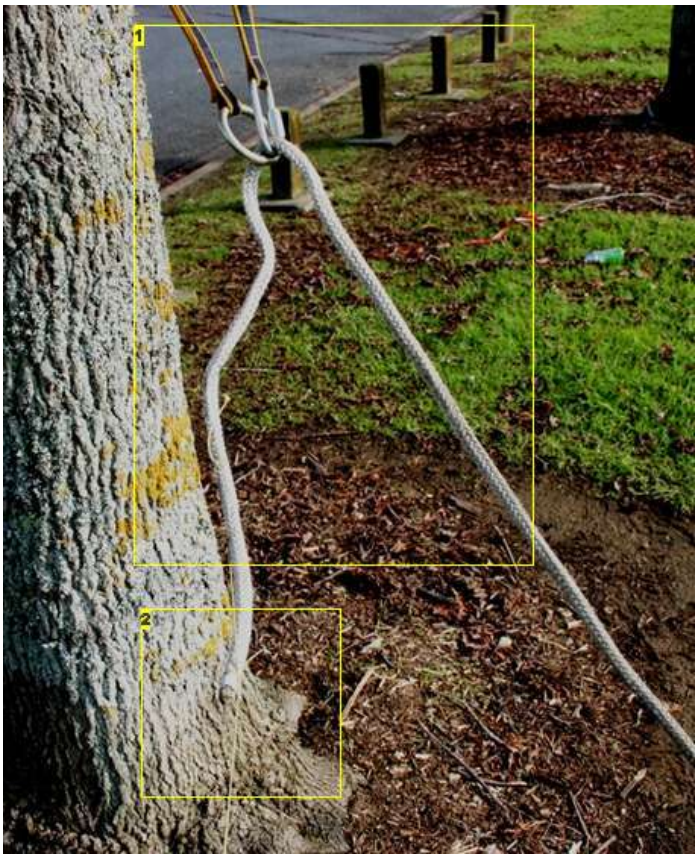


Image Notes
1. Yay! You've set a rope in the tree without climbing. Mind you, if you use a throwball to set a line over this particular branch, you really need help.
2. To retrieve the cambium saver, tie an overhand knot in this end of the rope and pull the other end. The knot will snag on the small loop and pull the cambium saver out of the tree.

step 5: Getting back your cambium saver

How to get you cambium saver back
Take hold of both ends of your climbing rope.

Look carefully up at your cambium saver. If you're short-sighted or have a long rope, use binoculars.

See which end of your rope goes to the **BIG** ring on the cambium saver.

Tie an overhand knot in this end of the rope. This knot should be small enough to go through the **BIG** ring but too big to go through the **SMALL** ring.

YOU ONLY GET ONE CHANCE TO DO THIS RIGHT - OTHERWISE YOU END UP CLIMBING THE TREE If you don't understand now, you soon will.

Pull on the end of the climbing rope without the knot. The knotted end should sail up, pop through the **BIG** ring of the cambium saver, catch the **SMALL** ring, and the cambium saver will fall on your head (unless you move). Any arborist will tell you that it is quite satisfying to have your rope and cambium saver at the bottom of the tree.

step 6: What can go wrong

Your throwball gets stuck in the cambium saver ring and won't come down
Solution: jiggle the throwline until it drops. If all else fails, you may have to climb and get it out.

The small loop of the cambium saver goes through the big one
Solution: You're climbing for sure!

You pull your climbing line or throwline out of the cambium saver, but leave it in the tree
Solution: see above

You pull the wrong end of your climbing rope when retrieving the cambium saver'
Solution: see above

CONCLUSION
Best you learn to climb trees, 'cos sooner or later you'll have to!

BIG DISCLAIMER
Climbing trees places you in mortal danger if you climb high enough and without suitable safety equipment. Please research tree climbing on the internet. There are recreational tree climbing clubs that can teach you to climb (e.g. Tree Climbers International). Please put your life in danger in a responsible fashion'

Related Instructables

How to Climb a Tree (with prussiks!) by stasterisk

how to make a awesome safe zipline by fidgety2

rappelling by superdude111

Grafting Made Simple by Progressive Farmer

Working Grappling Hook from Household Items by Aar000n3y

Tying a Prussic Knot. by F1X0R

the easiest swing to make ever! by dashofthunder

easy rappelling harness by superdude111

Comments

11 comments **Add Comment**

shrimps says: Jul 12, 2008. 2:56 AM **REPLY**

Well written and illustrated. You clearly know what youre doing. Its good to see someone demonstrating extra caution by wearing a helmet. The only minor point I would suggest (and it might possibly belong in the follow-up instructable on what to do once the rope is in the tree) is that although you can save money by using polypropylene rope and various varieties that can be bought from hardware shops, they arent designed to deal with the intense abuse from a friction knot sliding up and down them (or the squeezing and tearing effects of dedicated ascenders). A rope may be able to hold the weight of 20 elephants but if it doesnt have a durable sheath thin prussik cord will tear through it. A quick google search reveals you can buy seriously strong 11mm semi-static rope for $0.72/metre, at that price youd be silly not to. Look forward to the sequel.

pmac93 says: Jul 26, 2008. 1:24 PM **REPLY**

thats 72 cents per *foot* not metre.
you got me a little excited there

vitex says: Jul 12, 2008. 8:15 PM **REPLY**

Thanks for your comments - I was trying to encourage people to try. You're right, the only redeeming feature of polyprop rope is strength! Experience is a great teacher, and after struggling with bad rope, good rope makes all the difference...
I tend to avoid thin prusik cord. It looks sexy, but I'm not sure if it works well - it binds very tightly. I've had better success with prusik made out of rope close to the same diameter as the climbing line. I figure the only reason to use thinner rope is to save weight if you're going very high (which, in most trees, you are not)...

moomoocows says: Jul 6, 2008. 10:19 PM **REPLY**

Very well done. Ropes are a fetish of mine and anything new on them is appretiated.

vitex says: Jul 11, 2008. 5:56 PM **REPLY**

Hmmm.... I think ropes (like knives, water, fire) are one of those aboriginal tools that provoke a visceral response. You immediately start figuring out things to do with them.

I am fascinated by the outrigger canoes built by pacific islanders - nothing but fire, rope, woven plant fibre and wood. Zero-footprint technology.

treenail says: Jul 11, 2008. 5:58 AM **REPLY**

You're right, Harrison Rockets are the BEST throwbag in the world. Ask any group of pro arborists and most will tell you that the Rocket is worth every penny!

freakin_biggs says: Jul 6, 2008. 4:23 PM **REPLY**

arborist, arborist, arborist, arborist, arborist, and... arborist. That makes an even 300 for this page :)

vitex says: Jul 6, 2008. 5:13 PM **REPLY**

It's called indoctrination :)

joejoerowley says: Jul 6, 2008. 10:13 AM **REPLY**

Very Cool! Great Instructable!

LinuxH4x0r says: Jul 6, 2008. 9:46 AM **REPLY**

Awesome! Unfortunately there aren't many trees over 15 feet here

ll.13 says: Jul 6, 2008. 8:32 AM **REPLY**

Nicely done Instructable, and interesting technique. =)