DIY STOW-ABLE CABLE CROSSOVER/LAT PULLDOWN

Home gyms don't always have enough room for cable crossover and lat pulldown machines. Presented here is a design for a combined crossover/pulldown setup that can be removed and stowed when not being used.

This design is not the only way it can be done. Hopefully it can give DIYers some ideas should they want to develop their own design, or modify this design.

This sketch shows the basic design. Like most cable machines, a pulley is used to lift the weight. The “guide rope” keeps the plate hanger from swinging during a lift. Two sets of equipment are required for the cable crossover, as shown on the bottom part of the sketch.
HARDWARE DETAILS

The plate hanger is the key part of the apparatus. Standard 3/4” steel pipe fitting are used.

The spring clamps are the collars. They are quick and easy to use for this purpose.

The pulley rope is attached to the plate hanger by passing a loop over the pipe cross.

The loop is formed using a bowline knot. Here is a good online source for tying the knot:
http://www.animatedknots.com/bowline/
The fixed guide rope is routed through the vertical openings in the cross. The plastic adapters prevent the rope from chafing on the inner threads of the cross.

The methods used to hang the pulley and the guide rope to overhead supports depends on the type of overhead structure.

The picture at the left shows a way to hang from ceiling joists.

The pulley is a swivel-hook type. It is hooked to an eye bolt. Which in turn is screwed into a vertical mount anchor (right picture). Here is a link to an anchor vendor:

http://www.mcmaster.com/#rod-anchors/=nc6unx

There is very little force on the guide rope, so it is hung with a simple hook.

Quick installation and removal.

This shows a very simple way to anchor the bottom end of the guide rope. The rope is run through the hole in a large plate, then out past the edge. A knot on the end keeps it from sliding out.

Quick installation and removal.
Shown here are designs for the crossover handle and the pulldown handle. There are many ways to make the handles.

More DIY pipe information and projects can be found at:

ROPE. The rope used for this DIY is 8mm prusik cord. Link to a typical vendor:
http://www.rescuedirect.com/Merchant2/merchant.mvc?
Screen=PROD&Product_Code=8016&Category_Code=

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