

Hang Tight

The best ways to hang even the heaviest objects
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It began as a solid idea: my friend dry-mounted a poster on wood and hung it over his fireplace. Five hours later: bam! It came crashing down off the wall. Had my friend known that choosing a fastener depends on the weight of the object being hung, as well as the type of wall (drywall, plaster, brick) and studs (wood, metal) you're putting it on, his picture would still be hanging and the stereo nearby wouldn't have been smashed in the process.

Before hanging something, consider the weight and wall type, and then buy fasteners. But don't just reach into your toolbox for any old screw and wall plug; E-Z anchors, thin steel screws, plastic anchors—as with the rest of your tools, each one serves a particular purpose. In every case, we assume you're hanging the object on a wall made of drywall with wooden studs (see “Special Circumstances” for other scenarios).

HANGING A FRAMED PICTURE (up to 20 lbs.)

Pictures, or items that weigh less than 20 lbs., are the easiest to hang and don't require plastic wall plugs, screws or studs. Stick with thin nails (not screws) and picture hooks rated for the weight of the object being hung. Even art galleries hang their works this way, using the same type of hangers.

The key: go minimal and you won't ruin your wall. Too often we grab whatever nail or screw is most convenient, hammer it in and then hook the picture on it. This works, but you'll leave yourself a huge hole in the wall when you want to move the picture. Also, the longer you hang your picture, the bigger the hole will become.

Instead, lightly tap in a thin nail with the hook attached. For large pictures that are still less than 20 lbs., consider installing more than one picture hook.

HANGING A COAT RACK (10 to 20 lbs. with coats)

“A fastener is only as strong as the drywall it's anchored into,” says Don Millar of Hold-Tite Fasteners in Concord, Ont., who has been in the fastener business for more than 40 years. “Drywall is pretty flimsy, so don't overtighten the anchor or it will simply spin in its hole and you won't have any holding power.”

The key: drill properly sized pilot holes. The pilot hole should be smaller than the plug, so choose a drill bit just slightly smaller than the plug.

Measure your coat rack. Assuming it has five hooks and is 1.5 metres long, drill three pilot holes: one for a screw in the centre of the rack, and the other two on each end (split the difference from the centre to the edge; for longer or shorter racks, adjust the number

of fasteners accordingly).

Insert a hollow plastic wall plug into each hole, tapping the plugs lightly with a hammer so they're flush with the wall. Be careful that the entire plug doesn't tear completely through the drywall's paper covering. Next, install the screws through the coat rack and into the plugs with gentle force, so that you don't push the screw and plug through the drywall. Lightly tighten the screws so the coat rack sits tight against the wall.

HANGING A MIRROR (20 to 100 lbs.)

"Once you go beyond 20 lbs., it's a smart idea to drill at least one screw into a stud," says Millar. Use a wood screw (it has more bite) and try to drill right into the centre of the stud. Screws going into studs don't require wall plugs.

The key: "Coarse-threaded wood screws work best," says kitchen and bathroom contractor Kevin Armitage of Armitage Professional Finishes, a renovation company in Courtice, Ont. "Coarse screws bite into the wood and really hold." Armitage also suggests using a washer so that the head doesn't dig into the wallboard.

Since you're going right into a stud, you don't need to drill a pilot hole, but it's a good idea to use a template: cut a piece of newspaper or cardboard to the same size and shape as the object, hold it up on the wall and mark the spots where the fasteners will go. As a general rule, space the fasteners two to three inches in from the edge of the frame. Use a level to make sure the holes are at the same height.

The second fastener will go right into the drywall and not a stud, but instead of installing a plastic anchor and a regular screw, use an E-Z drywall anchor. These fasteners, which come in plastic or metal, allow you to hang heavy objects securely while preserving the integrity of the wallboard, sort of what the antiquated toggle bolt used to do (don't bother fussing with toggles or Molly bolts—they're as useful now as a computer from 1991). E-Z Anchors are self-tapping, too, so there's no need to drill a pilot hole. Simply drive the anchor into the wall, and when you're ready to hang, insert the screw into the anchor.

HANGING PLASMA TELEVISION (75 to 150 lbs.)

Most, if not all, plasma TVs come with brackets specifically designed to hold them on the wall; however, like the weak batteries that come with a toy, the fasteners are not always the best. "The hardware is often of lower quality and not necessarily the best way to hang the item," says Mike Dennis, trading manager at Brafasco in Brampton, Ont. "If in doubt, measure your TV, including weight, and consult a professional. Having your TV crash down two weeks after the warranty runs out isn't your objective."

Assuming the brackets and fasteners are suitable, your next step is to assess the area. If the brackets span two studs, install them by drilling right into the studs, using a level to

make sure they're straight.

If you don't have access to two studs, simply cut out a small section of drywall using a utility knife. Cut a 2x4 (or a piece of plywood) long enough to span two studs. Find the exact height you want to hang the TV, and then screw or nail the piece of wood horizontally to the two studs. Then place the bracket over top the area and attach it to the newly installed wood and, if possible, one of the studs.

HANGING A BOOKCASE OR CABINET (200 to 300 lbs.)

There are two considerations here. If the bookcase sits on the floor, all the weight is sheer (straight down) and you only need to stabilize the top by installing a few #8 screws into a stud toward the top of the case. This will prevent it from toppling over.

If you can't find a stud, use a few E-Z Toggle expansion anchors for added reinforcement. "E-Z Toggles screw into the drywall exactly like an E-Z Anchor," says Dennis, "but the anchor is longer and you use a longer screw. As you put the screw through the anchor, a toggle switch moves, so as you tighten, the switch spreads and holds tight against the drywall." For even heavier loads, use a toggle anchor, which can accommodate larger fasteners.

Hanging a bookcase with its weight being carried by the anchors requires reinforced drywall. Reinforce the drywall with 2x4s as you would with a television (see above). For extra protection, install additional horizontal pieces (there's no such thing as overkill here): one near the bottom, one in the middle and one near the top.

Next, screw the bookcase to the wall by drilling directly into the studs and horizontal braces. For spots without studs, use an expansion anchor.

SPECIAL CIRCUMSTANCES

No Studs: Studs never seem to be where you need them. In such cases, it's especially important to choose wall fasteners that spread the weight while protecting the wallboard from crumbling. For these cases, the answer is easy: E-Z Anchors. Use multiple anchors, depending on the size of the item being hung.

Steel Studs: Metal studs are made of thin sheet metal that can easily strip fastener holes, so always use fine-threaded metal screws and drill slowly.

Plaster: To keep crumbling to a minimum, drill pilot holes and use plastic or metal plugs. For heavier applications, a concrete sleeve anchor works best.

Masonry: You will need to use longer expanding anchors made of all metal that are designed for masonry (bricks, stucco, concrete). Hang light objects from special tempered-steel masonry nails. For heavier objects, fill predrilled holes with anchors that have a resilient sleeve that expands to hold a screw or bolt in place.