

# This Old House

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ALL ABOUT

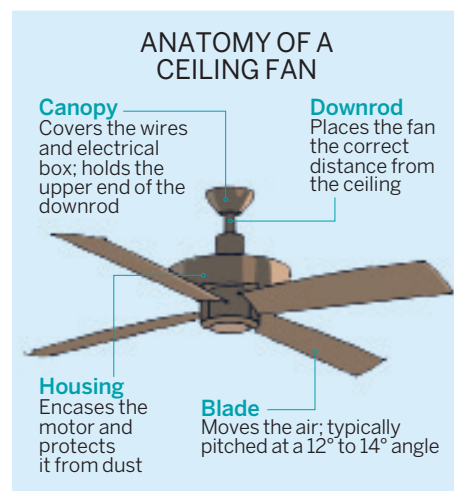
# Ceiling Fans

These air movers keep you cool and look cool doing it. Here's how to choose a model that's right for your space **BY LOUIS HOUSTON**

**THE GENIUS IDEA** hasn't changed since the invention of the electric ceiling fan in 1887: When temperatures climb, just yank a chain, flick a switch, or point a remote and feel instant relief as a breeze wafts down from above. Fans don't alter the temperature, but they do zap body heat by making moisture evaporate, turning sticky perspiration into a coolant. All this for not much money up front and only pennies to operate.

Even better are the savings on air-conditioning costs. By themselves, ceiling fans will keep you comfortable at temperatures reaching into the 80s, so you won't need to use your AC system as often. And when the AC is running, a spinning ceiling fan will let you turn up the thermostat by 4 degrees—and knock 8 percent off your electric bill.

While their chilling effect has remained consistent, the fans themselves certainly have not. New blade shapes and improved motors move air more efficiently than ever, and smart controls calibrate speeds with greater precision. Then there's the proliferation of styles, which makes it easy to find a fan that suits your decor. Before you resort to grabbing the first one that catches your eye, here's what to look for.



PHOTOS: (MAIN) RYANN FORD; (VITALS) OXFORD/ISTOCKPHOTO; STYLING: (MAIN) ADAM FORTNER; ILLUSTRATION: ARTHUR MOUNT

## VITALS

### DIY OR HIRE A PRO?

It's not hard to swap in a replacement ceiling fan, but if wires have to be fished and circuits added, or the ceiling is higher than 10 feet, you probably need an electrician.



### HOW MUCH DO THEY COST?

From \$100 to \$3,000, depending on size and design; the sweet spot is \$300 to \$400.

### HOW LONG DO THEY LAST?

Ceiling fans rarely need repairs beyond correcting a wobble or replacing blades damaged by moisture. Most manufacturers offer a lifetime warranty on the motor and a year on the other parts.

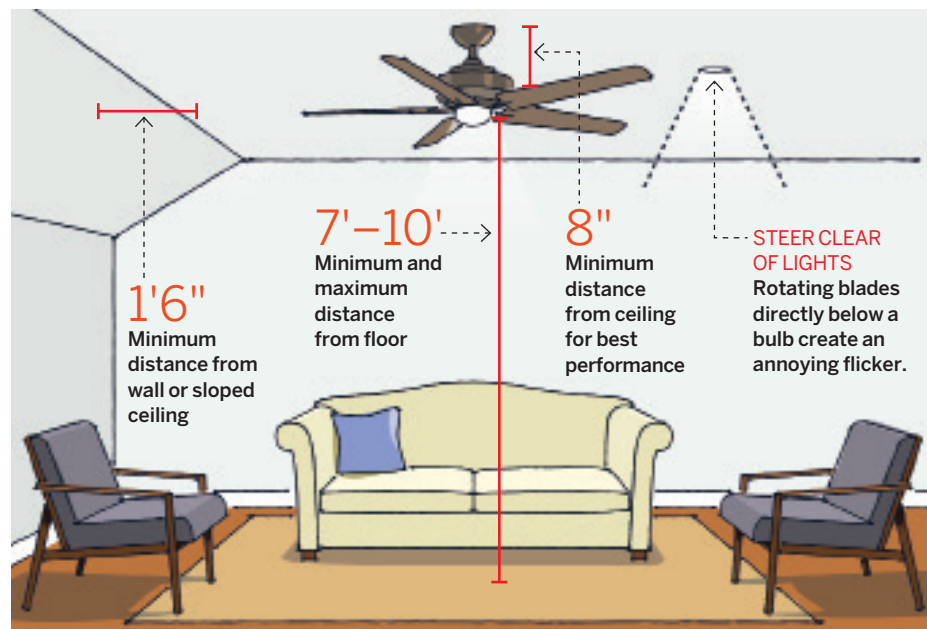
### WHERE TO BUY?

A home center may have what you need, but for the best choice at the higher end try a lighting showroom. Either way, learn about options by scouting online.

This industrial-looking model has an oil-rubbed bronze finish and rugged plastic blades. Its integral light has been capped. Shown: 52-inch Strata, \$319; [minkagroup.net](http://minkagroup.net)

## Getting the right fit

For the best breeze, avoid hanging the fan too tight to the ceiling or too far from the floor



### CALCULATOR

Use this formula to find the optimal fan size for a room's occupied space—the part of the room where people linger. Step down a bit for rooms with low ceilings, and go wider if ceilings are high.

OCCUPIED SPACE  
(in square feet)

÷ 4 =

BLADE SPAN  
(in inches)

## Showroom checklist

What to look for while you shop

**MOTOR** > While AC motors are the norm, newer (and pricier) DC motors offer up to seven speeds and save up to 70 percent on electricity.

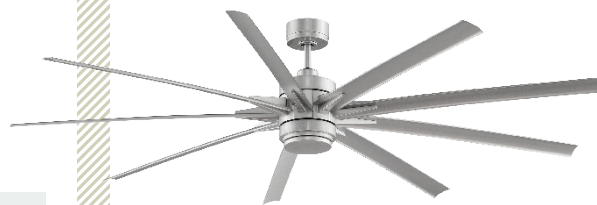
**BULB** > Watch out for integral bulbs that can't be replaced and for pin-base halogens, which can be difficult to find (and

to handle). Screw-in LED bulbs sip electricity and should last for years. Keep in mind that not all LEDs are dimmable.

**BLADE MATERIAL** > When it's humid, wood-composite blades can droop like a wilted flower. Opt for solid wood, metal, or plastic.

**ENERGY STAR LABEL** > The blue logo means the fan passed quality and efficiency tests and can move at least 5,000 cfm at 75 cfm per watt. Put another way, it costs less than a penny per hour to operate (LED light included), at 11 cents per kilowatt-hour.\*

\*Average cost of electricity in the U.S.



## HOW MUCH AIR DOES IT MOVE?

Efficacy is all about cfm, not the number of blades

Once you've calculated the ideal blade span for your space, start shopping for a fan with an appealing style and price. But also make sure that the cubic feet of air it moves per minute (cfm), measured at high speed, is near the top of its class. Some 52-inch fans, for instance, rate as low as 2,050 cfm, while others reach 7,800.

High-cfm fans not only provide a better breeze, they usually have robust motors that will last longer and run quieter than their more anemic counterparts. Don't worry about it feeling too drafty; you can always switch to a lower speed.

To find and compare fans' cfm, check online retailers like Hansen Wholesale ([hansenwholesale.com](http://hansenwholesale.com)).

## WHEN TO DOUBLE UP

How to handle rooms that are long and narrow? When they're about twice as long as they are wide, divide in half and install two smaller fans, evenly spaced, for a balanced look as well as best performance.

## Choose your style

There are sleek, fanciful, and barely-there options to suit any space

**1 > TRADITIONAL** An unadorned motor housing and four or five flat blades define the look of ceiling fans made during the first half of the 20th century. Shown: 56-inch Ashfield Antique Flemish with light kit, \$654; [quoruminternational.com](http://quoruminternational.com)

**2 > DUAL-HEAD** Spinning two small-diameter fans around a central axis ensures that each corner of the room is treated to an intermittent whoosh. Shown: Minka Aire Gyro, \$630; [minkagroup.net](http://minkagroup.net)

**3 > ART DECO** Matte nickel accents give this fan a sleek, aerodynamic look. Shown: 42-inch Pharos, \$436; [modernfan.com](http://modernfan.com)

**4 > TRANSPARENT** Whether operating or still, clear glass or plastic blades virtually disappear. This model has three blades made of nearly unbreakable polycarbonate. Shown: 58-inch Artemis, \$550; [minkagroup.net](http://minkagroup.net)

**5 > CEILING HUGGER** With blades just 6 inches below the ceiling, this style helps maximize headroom, but does sacrifice some performance. Shown: 44-inch Casa Habitat Bronze, \$230; [lampsplus.com](http://lampsplus.com)

**6 > BELT-DRIVEN** For a truly vintage look, blades are separated from the motor and turned via a belt-and-pulley system. Can be configured so that one motor drives multiple fans. Shown: 56-inch Brewmaster with two fans, \$1,854; [fananimation.com](http://fananimation.com)

PHOTOS: (1) COURTESY OF ECHELON CUSTOM HOMES; (2) COURTESY OF BLUE SKY BUILDING COMPANY; (3) GREG PERMU; (4) PAUL BURK; (5) CHARLES SCHMIDT/GETTY IMAGES; (6) COURTESY OF PANAGERIES DESIGN; (OPPOSITE PAGE) COURTESY OF BIG ASS FANS. DESIGN: (3) LIDA ARCHITECTURE AND INTERIORS; (4) ANTHONY WILDER DESIGN/BUILD; (6) PANAGERIES DESIGN. ILLUSTRATION: (OPPOSITE PAGE) ARTHUR MOUNT



1



2



3



4



5



6



## WHAT'S WITH THOSE CURVY BLADES?

Their aerodynamic shape from base to tip, as seen at left, maximizes air movement as it minimizes the power-robbing turbulence that cuts into fan efficiency. Because these sculpted blades do more work with less effort, they manage just fine with a smaller motor. Fans with flat blades can be efficient, too, but won't match the high cfm-per-watt performance of these blades' unique design.

Shapely bamboo blades, paired with an energy-efficient DC motor, move an impressive 416 cfm per watt at high speed. Shown: 52-inch H Series, \$995; haikuhome.com

### PRO ADVICE

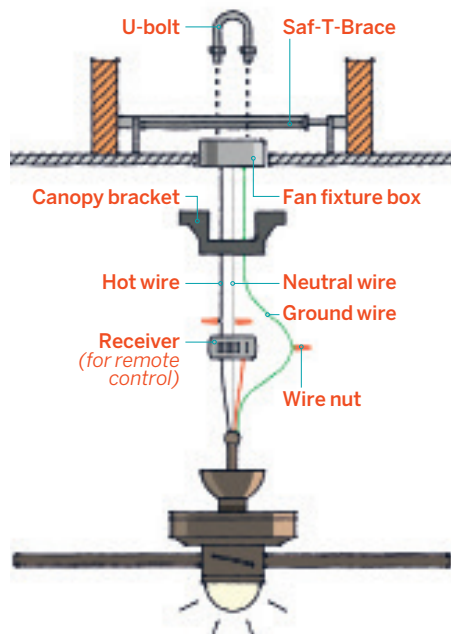
## If you decide to DIY

Get a beefy fan box and find the framing where it will be attached

**GET A FAN FIXTURE BOX** > This type of junction box, which safely contains the wiring, uses a heavier gauge metal than the ones for most light fixtures and can thus handle the extra weight of a ceiling fan.

**SECURE IT TO A JOIST** > A fan box must be firmly attached to the house's framing. Fasten it directly to a joist or rafter using deck screws (never brittle drywall screws), or hang it from a Saf-T-Brace (shown here), which fits between joists with its ends anchored into their faces.

**WIRING** > If there's power running to the right spot, connecting the wires is straightforward. Make sure to cap each wire end tightly with the correct-size wire nut and tuck them neatly into the fan box. If there's no wiring in the ceiling, hire a pro—after seeing how it should be done at [thisoldhouse.com/wire-a-fan](http://thisoldhouse.com/wire-a-fan).



When replacing a ceiling fixture with a fan-and-light combo, get one with a remote, as shown above. Then you can control the fan and light separately without having to fish another cable to the fan box.



Apps like SimpleConnect from Hunter Fan put control of your ceiling fan and its light on your smartphone.

## SPIN CONTROL

The pull chain is passé. Here are newer ways to take charge of your fan

**> USE A REMOTE** Most manufacturers offer optional line-of-sight remotes, which let you adjust the breeze—and the light—without getting out of bed.

**> UPGRADE THE SWITCH** A dimmer like Lutron's Maestro allows seven speed settings—more than most fan motors provide—so you can dial in a custom comfort level.

**> GET AN APP** Hunter's SimpleConnect and Fanimation's FanSync let you control any make or number of fans remotely—as well as set schedules and program sleep timers—via your smartphone.

**> SPRING FOR A MOTION SENSOR** The Haiku fan, above left, can be equipped to turn on automatically when you enter the room and off when you leave. That means less waste—and less energy spent nagging the kids.



Ceiling fans in a pergola must be UL-certified for use in wet locations. Shown: 52-inch Concept II, \$340; minkagroup.com

## Take it outside

Make sure the fan can stand up to the elements and move lots of air

When summer air turns still, a man-made breeze on a porch or patio provides welcome cooling and may even blow away mosquitoes. Just choose a fan that has been certified by Underwriters Laboratories (UL) as suitable for outdoor use. These fans, also known as overhead patio fans, have sealed motor housings and electrical components able to withstand humidity and moisture. They come in two types: those certified for damp but sheltered locations such as porches, garages, and basements, and those certified for wet, exposed locations, such as decks, pergolas, and patios. Note that outdoor fans must move higher volumes of air than indoor models—at least 6,000 cfm. To keep bugs away, go for at least 8,000 cfm. In coastal areas, look for ABS plastic blades and nonrusting plastic or marine-grade stainless-steel housings that will weather salt air.

## CARE AND CLEANING

Dust buildup cuts down on efficiency and may cause wobbling

**> PUT AWAY THE 3-IN-ONE OIL** While vintage fans do require a few drops of oil to keep bearings quiet, modern fans have sealed bearings, making lubrication unnecessary.

**> DUST** Every three months or so, wipe the blades with a dampened microfiber cloth or a duster, like the one shown above.

**> DEGREASE** A fan near a cooking zone attracts oily residues, a.k.a. dust adhesive. Once a month, spray the blades with a product like Seventh Generation Multi-Surface Cleaner.

**> STABILIZE** If dusting doesn't cure a wobbling fan, try rebalancing it by carefully adding fan weights to the blades. To see how that's done, go to [thisoldhouse.com/fan-weights](http://thisoldhouse.com/fan-weights).



Unger's pivoting Click and Dust microfiber duster locks at an angle. \$7; [homedepot.com](http://homedepot.com)

## Power-saving tips

It's hot out—so conserve your energy

**TURN UP THE AC TEMP** > When a ceiling fan operates in an air-conditioned space, you can set the thermostat up to 4 degrees higher without any loss of comfort, and enjoy lower electricity bills to boot.

**REVERSE IT IN WINTER** > An indoor breeze in warm weather is delightful; in cold weather, not so much. But ceiling fans still perform a useful function during the heating season by mixing the warm air

that rises to the ceiling with colder air near the floor. To avoid noticeable drafts, reverse the motor so blades spin clockwise. Set the speed at low to gently push warm air across the ceiling and down along the walls.

**TURN IT OFF** > A fan's cooling action works only when you feel its breeze; spinning blades don't cool the air or the room. So save energy by hitting the OFF switch when you leave a room—like you do with the lights, right? ■