

## Robot Vacuum Buyer's Guide



### **What is a robot vacuum?**

This device can be operated using a remote control, phone app or programmed to clean areas of the house. Robot vacuums have evolved to include several innovative functions including mapping features that guide the vacuum to clean in a specified route. Others can scoop dirt that is a bit stuck and sweep them up. Even if it doesn't have all these bells and whistles, if it vacuums and doesn't have to be guided by hand, it's a robot vacuum.

### **How does a robot vacuum work?**

Robot vacuums will ordinarily come with a rechargeable battery. After this battery is fully charged (which will take anywhere between seven and three hours), the vacuum can operate. It operates by using the battery to power up a number of motors that are designed for different functions within the vacuum.

In-built motors power the spinning brushes and rolling brushes that work to sweep food particles and dust to where the vacuum can suck them up. When the debris is sucked in, it is stored in a removable bin, which can be emptied whenever it gets full.

To help the vacuum know where it's going, or at least keep it from bumping into walls or furniture, it is equipped with a raft of sensors on different parts of its body. These make the vacuum change direction whenever it senses an obstacle in its path. There are also sensors beneath the machine to keep it from tumbling down from high areas. Some models even have sensors that enable them to focus cleaning on dirtier, high-traffic areas of the house.

More recent vacuum models rely not only on sensors to know where to go, but also intelligent mapping. Using a smartphone app you can establish a course for

the vacuum along with a cleaning schedule. Or simply use voice commands to tell it what to do.

### **Who needs a robot vacuum?**

Most every busy modern household will appreciate their need for a robot vacuum. It is especially well appreciated by those who don't look forward to daily cleaning and only get to it when they have guests coming round. You can put your feet up as the vacuum scurries around swallowing up dirt. It is also ideal for those who really want to keep their home spick and span but just don't have the time to walk around with a conventional vacuum. If this is you, simply juice up your vacuum robot and schedule a session from your office via the app.

This invention is a boon for those who may be physically impaired and not able to go about cleaning like we normally do.

### **Which kind of robot vacuum is needed for a big house?**

If you have a sizeable surface area- spacious rooms or a house with many rooms, you will need to select your robot vacuum with a keener eye. Key among the features to look out for will be a longer-lasting battery. The simple logic here is that the longer it can run without a recharge, the more the vacuum will get done. If you have that option available, pick one of the vacuums with 90-minute run time as opposed to 60 or 70-minute models. There are even others with 100-minute plus run times.

A self-charging vacuum is also ideal for such homeowners. Such vacuums can sense when they're running low on power and find their way to the charging station to juice up again. It would also be beneficial, if your budget will allow, to invest in a vacuum that can empty its own bin. This will allow it to keep working even after it has filled its receptacle. If not, look for a vacuum with a larger bin.

A big bin and a higher capacity battery are recommended for owners of big homes.

### **Do you have a carpet, a wood floor or tiles?**

Carpets can present a bit of a challenge for robot vacuums. For one, the transition from floor to carpet may cause lower versions to topple. Others may consider the carpet an obstacle and avoid it altogether. Conventional robot vacuums usually struggle with high pile carpets, only dealing comfortably with low and medium pile carpets. If you have one of those fluffy carpets, confirm the vacuum can be used with high pile carpets before committing yourself.

Most vacuums will generally work well with floors made of wood though there are models specifically built to work on hardwood floors. Not only does their cleaning system work well on hard surfaces, their rollers are made from rubber to reduce chances of leaving marks on your floor. However, there are also versatile cleaners that can adjust their operation to work on both carpets and wooden tiles.

### **Do you have pets?**

If you do, you'll be looking for a cleaner that can properly deal with pet hairs. It should be equipped with brushes that can collect pet hairs without them getting tangled up in the bristles. This is important to confirm if you have a pet with particularly long hair. Better still, you could look for a brushless robot vacuum to avoid this possibility altogether.

You will also need a vacuum with an efficient filter that can pick out the hairs and deliver them to the bin. There are models that come with HEPA filters that can pick out allergens in these hairs and keep them from affecting the health of your family. Pet furs tend to fill up vacuum bins pretty quickly so if you want the vacuum to work while you're away, one that can empty its own bin and continue vacuuming would be ideal. Or simply go for a model with a higher capacity bin to reduce the need for emptying.

### **Robot vacuums vs. Canister vacuums vs. Upright vacuums**

When you set out to shop for a vacuum cleaner, you will essentially have these three options. We've already defined robot vacuums, so what are canister and upright vacuums? They're fancy names for the conventional vacuums that preceded the robovac. The former was designed with a wand (where the nozzle is) that is separate from the body, which houses the motor and dustbin. The latter is what probably comes to most of our minds when we think about vacuum cleaners. It has everything on one unit, which stands upright but can be tilted to various angles.

So which is the best option? This is a tricky one to answer as each has its own merits and demerits. Ultimately, the choice you make will largely be determined by your needs, and budget. Perhaps the first question you need to ask yourself is if you have the time and energy to vacuum or if you want the vacuuming to be done as you attend to other matters (or dose off). If you don't want to entirely entrust your home's cleanliness to a machine, you will need to figure which, between a canister and an upright vac, works best for you.

Upright vacs are generally easier to move around and store as you'll be dealing with just one unit. They're also easier to use than canisters. All you need to do is just plug it into a power source, flip a switch and you're good to go. You don't have to worry about how to connect multiple pieces. If you have a large area to cover, an upright would be the better option as their wide head allows for larger area of suction. And when you're done, they're easy to put away.

On the flipside, uprights can be heavy, so moving them around while cleaning can be a hassle. The weight and the rigidity of the body make it difficult to use such vacuums on staircases. It's worth noting, though, that there are lightweight models available today. While their wide body makes it easy to cover a lot of ground, they make it a challenge to reach dirt in hidden nooks. Most users of these traditional vacuums also complain about the cord being tricky to maneuver around. They also take issue with the amount of noise they produce.

Canister vacuums deal with a lot of the upright's cons. For one they tend to be lighter and easier to lug around. Secondly, they come with a retractable cord to

reduce chances of it being tripped over. This is important for both the user's safety and the safety of their loved ones (pets included). The cleaning power of canister vacs is generally higher than that of their elder brothers, with even smaller models starting at nine amps. Newer models will come with multiple power levels for optimal cleaning of different surfaces.

If you have to vacuum a staircase, the canister will give you the required flexibility. You will have a variety of heads to choose from to clean different surface. This flexibility the canister's wand offers will allow it to clean hidden nooks more thoroughly than both the robovac and the upright vacuum. Being generally lighter than uprights, operating canister vacuums is less of a chore. And their retractable cords make them safer to use too.

With all those pros, do canisters have any shortcomings? Yes, for one, they will set you back way more dollars than a robovac or upright, particularly if you're out for one with all the bells and whistles. Canisters, light as some models may be, are more cumbersome to move about as you're still dealing with two pieces instead of one. And they won't give you remote operation like a robovac will; you have to work it with your hands.

### **Benefits of using a robot vacuum**

There are many reasons to choose a robovac over the other two more traditional alternatives. Let's start with the fact that you don't have to lift a finger for them to get to work. With some you just push a button on a remote control, with others you just talk to the machine through a mobile phone app. No need to guide the cleaning head over your floors and carpets, exposing yourself to dust and allergens.

The fact that you don't have to be physically present to maneuver the vacuum means you can be cleaning your house as you work in the office or nap the afternoon away. Advances in technology mean that these autonomous vacuums no longer get stuck on the threshold when moving between rooms. They can also return to the charging dock automatically when almost out of juice and they can empty themselves when full of dirt.

More recent models can be fed a map of your house and they will systematically clean it from room to room, following a strict pattern of motion. Whereas you can be distracted and miss a spot, the robovac won't. Chances are it will go over that spot more than once as it follows its pattern. This results in overall better cleaning results.

If you're in the house while the robot vacuum is working, you might not even notice it as later models have low noise levels. Good luck trying to focus on an assignment with someone working an upright vacuum in the background.

Where the robot vacuum beats both the canister and the upright hands down is storage space. Deliberately built to be slim enough to slide beneath furniture, robovacs are the easiest to put away when not in use.

Robovacs are important tools of cleanliness for the physically handicapped and the elderly. They restore a welcome sense of control and autonomy to these folk with limited mobility since they won't have to rely on someone else to do their vacuuming. This will also help them save on the money they would have spent hiring someone to clean up for them.

### **Factors to consider when buying a robot vacuum**

**Runtime:** How many minutes can the vacuum operate on a single charge? This is an important consideration in determining the performance of a robot vacuum—and if it will offer you value for money. If you have a big surface area to clean, you will want to invest in a vacuum with a high-capacity battery. If not, you will need one that can make its way to the charging dock automatically and recharge itself.

**Dustbin size:** Vacuuming bigger houses will be easier if you have a large bin. This will mean you don't have to hang around waiting to empty it every so often. Nowadays there are robot vacuums that take care of the emptying themselves. But you're still well advised to pick one with a bigger bin for increased efficiency—and the self-emptying models come at a higher price point.

**Ease of maintenance:** How well will the vacuum take punishment? How long will you use it before it breaks down and parts have to be replaced? And when that does happen, how available will those parts be, and how cheap or expensive will they be? If you opt for popular brands like iRobot Roomba and Eufy, you will easily be able to find parts, along with instructions on how to install them.

**Cleaning power:** The amount of suction power a robot vacuum is capable of delivering should be a salient factor in deciding whether to buy it or not. You want a vacuum that at least offers you as much suction power as conventional vacuums do. In addition to suction power, you need to look at how well the vacuum deals with different kinds of dirt on different surfaces. Some come with a triple-action cleaning mechanism that can loosen and lift dirt from the floor, brush it into position and suck it up. Others come with sensors that make them focus on particularly dirty areas.

**Navigation:** Will your robot vacuum be able to map out a cleaning route, finding its way from room to room? Or will it wear out its battery repeatedly bumping into walls? Newer models connect to the Internet through Wi-Fi and allow you to remotely map out a cleaning route. Advanced models use invisible lasers to develop an accurate set of boundaries to guide the robovac.

**Remote control:** More basic robot vacuums come with just a power button and a remote control. It's, however, becoming more common for robovacs to come with Wi-Fi connectivity that allows them to be controlled from far away. You can then download the matching app and savor the convenience of scheduling cleaning sessions and mapping a cleaning route from wherever you are.

**Value for money:** The vacuum you finally invest in will largely be determined by how much you're willing to put down for the gadget. More expensive models are

more likely to be made by renowned brands and pack a few enticing extras. But if all you need is a simple vacuum that will reduce the amount of manual labor involved in cleaning, there's no need to spend top dollar.

As newer models are released, discounts on previous models begin to be announced. So if you are a little patient you can still get the extras at a very fair price. The bottom line is, have a budget and try as much as possible to stick to it while considering the essentials you can't do without.

## **FAQs related to robot vacuums**

**Does a robot vacuum know when a room is clean?** The last thing you need is your vacuum draining its battery going over an already clean space when there are other dirty areas. Some iRobot models solve this puzzle by sending out infrared signals to determine the size of a room. Once they 'know' how big a room is, they can work out how much time it will take to clean it. So when the timer hits that time, the cleaner knows the job is done. The cleaning is done using a pattern established by an array of sensors lining the bumper of the vacuum. When the sensors encounter an object, it signals the robovac to change direction and in this way, the vacuum establishes a cleaning path. When the path is completed and the time has run out, the cleaner concludes that the room is clean enough.

This mode of action is used by more advanced models, older robots merely rely on collision sensors. These would take a longer time to clean as they would repeatedly bump into objects to try and define a path, thus spending more time unnecessarily in tight spaces while cleaning scantily in open areas.

**How many years do robot vacuums last?** If you take care of your robot vacuum, it should serve you for at least four years. The more solidly built, renowned brands even make it to six years. While the build quality is a key factor in determining the lifespan of a vacuum, how you take care of it is equally important.

Every now couple of months you need to replace the brushes and filters. Over time, carpet fibers and pet hairs can collect in these two areas, hampering the effectiveness of the cleaner. The sensors should also be upgraded every two years or so. A key consideration when doing these replacements is the quality of the parts you're putting in. If you go for cheap, low-quality spares, chances are you're shortening the life of your cleaner.

**Do you run a robot vacuum every day?** How often you operate your robot vacuum is not simply a matter of personal preference. For an average home, you should run your robot vacuum at least three to four times a week. Even if you feel your house is not that dirty, it is important to run the vacuum as frequent use prolongs its battery life. Reset the battery now and then to make it last even longer.

If you have pets, it is a good idea to vacuum daily to keep your home free of dog or cat hair.

**Can robot vacuum filters be washed?** This will entirely depend on the kind of vacuum you have. While some vacuums come with washable filters, others, like those of Roomba vacuums, don't. The best you can do with such is to tap out dirt particles after a cleaning session. And after a few months, these filters will be due for replacement.

**Can the Roomba battery be replaced?** Yes, it can. In fact, it is recommended you do so every two years or so. The replacement procedure is simple. Flip the vacuum upside down and unscrew the brush and the bottom cover. After this, lift the old battery out and slide the new one in, screwing the brush and cover back in place.

**Do you need Wi-Fi for a robot vacuum?** That again depends on the model in question. Advanced models have Wi-Fi connectivity to enable you to control them remotely via a mobile app. Be sure to go through the list of features of any robot vacuum before you buy to avoid disappointment.

**Can a robot vacuum do stairs?** Not that is available in stores today. The best robot vacuums can do presently is keep themselves from toppling down a staircase. A recent invention, 'flying' robovacs, was thought to address this challenge but doesn't do so in reality. The draft created by its propellers scuttles the particles to be vacuumed, negating their practicality.

**Do robot vacuums clean multiple rooms?** Robot vacuums will keep cleaning as long they have battery life. And with self-charging mechanisms in newer models, battery life doesn't have to be limited to one charge. The only challenge for robot vacuums is crossing the threshold from one room to the next. There was a tendency for some to topple or get stuck while attempting to do this. Manufacturers have fitted robovacs with bigger wheels to overcome this challenge.

**How long does a Roomba to clean a room?** Depending on the size of the room, a Roomba will finish cleaning it in between one and two hours. It takes longer than if you would do it yourself, but it does a pretty good job while freeing you up to focus on other stuff.