

# Intelligent robot to clean your home

TOKYO, JAPAN: The Dyson 360 Eye robot vacuum cleaner is claimed to have more suction than any other robot vacuum.

After 16 years of research and development, James Dyson has unveiled Dyson's cyclonic robot vacuum cleaner in Tokyo. The Dyson 360 Eye vacuum is an intelligent robot that is claimed to be capable of cleaning properly, with more suction power than any other robot vacuum on the market.

**Before:** Get up. Go to work. Brave the commute home. Lug the heavy vacuum out of the closet. Unwind the cord. Pull it around and do the vacuuming. Hassle.

**After:** Get up. Go to work, and on the way, use your smart phone to schedule the Dyson 360 Eye vacuum to clean your home. Brave the commute. Come home to a clean house. Relax.



The Dyson 360 Eye robot vacuum will go on sale in Japan in spring 2015, with the rest of the world to follow later in the year.

"Most robotic vacuum cleaners don't see their environment, have little suction, and don't clean properly," says James Dyson. They are gimmicks. We've been developing a unique 360° vision system that lets our robot see where it is, where it has been, and where it is yet to clean. Vision, combined with our high-speed digital motor and cyclone technology, is the key to achieving a high performing robot vacuum - a genuine labour saving device."

Existing robot vacuums can have several problems:

**Problem:** Other robotic vacuums often neglect cleaning performance. In order to conserve battery life, they use weak, inefficient motors, meaning they have poor suction and pick up less dirt.

**Solution:** Powered by the energy efficient V2 Dyson digital motor, the Dyson 360 Eye vacuum uses Radial Root Cyclone technology to, it is claimed, effectively separate dust and dirt, capturing particles down to 0.5 microns - 600 times smaller than the dot at the end of this sentence.

**Problem:** Without vision, many robots rely on blindly feeling out their environment and end up missing patches.

**Solution:** The Dyson 360 Eye vacuum sees its environment using what is claimed to be a unique 360° vision system, and then builds a detailed floor plan to intelligently and systematically navigate around a room and tracks its position.

Infrared sensors work in conjunction with a lens on the top of the machine that houses a 360° panoramic camera. The camera can see the whole room so the machine can accurately triangulate its position. It then uses landmarks within the images to establish how it has moved between each frame and update its model of the environment accordingly.

**Problem:** Reliant on rotating sweepers to clear dirt, other robotic vacuums end up merely flicking particles around.

**Solution:** The brush bar on the Dyson 360 Eye vacuum extends to the full width of the machine, meaning that it doesn't rely on side sweepers to reach the edges of the room. It uses patented carbon fibre brush bar technology to remove fine dust on hard floors, and stiff nylon bristles to agitate and clean carpets.

**Problem:** Other robots employ wheels to get around, so they struggle to overcome obstacles and traverse different floor types.

**Solution:** Like an all-terrain vehicle, continuous tank tracks enable the Dyson 360 Eye robot vacuum to maintain speed and direction across all floor types, and over small obstacles.

**Dyson Link App:** A new Dyson-developed app for iOS and Android will let Dyson owners keep on top of the cleaning - even if they are out of the house. They can even schedule the machine if out of the country and on holiday - returning from vacation to a clean home. It is claimed the owner will be able to set up a single clean or a recurrent cleaning schedule at the press of a button.

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