

Robotic Floor Care

IV800
ROBOTIC VACUUM

IntelliBOT
www.intellibotrobotics.com



Intelligent Floor Care:

The extraordinary new way to clean floors.



What is Intelligent Floor Care?

Several advancements make separating operator and machine — INTELLIGENT FLOOR CARE — a reality. The use of onboard computers means the robot can clean by itself, while improving output performance and quality — and substantially increasing productivity. Intelligent Floor Care also means a higher standard of cleanliness is achieved — cleaner carpets, cleaner hard surfaces and better indoor air quality.

The true intelligent revolution is in the IV800 Robotic Vacuum's software. Intellibot's patented Complex Area Navigation technology uses ultrasonic sonar sensors to create and store, in memory, maps of multiple cleaning routines. These maps allow the IV800 to safely and smoothly navigate almost any floor configuration. Sensors are used to avoid walls and obstacles, so there's no need for tape, bar codes, track or other defacements. For complete safety, the ultrasonic sonar sensors constantly watch for moving and non-moving objects in the machine's path — no worries of running into people, walls or furniture.

Increased productivity.

The IV800 moves automatically through its jobs, even navigating complex paths between cleaning areas. The IV800's highly refined diagnostic system continually monitors and reports on the machine's performance, paging the operator only when it encounters issues that it can't solve on its own. All of this, with only about 25 minutes of operator attention per eight hour shift. This frees the operator to take care of other jobs around the facility that would otherwise be neglected or passed over completely. The end result is reduced safety and security concerns, an enhanced level of cleanliness and higher productivity throughout the entire site.

Powerful cleaning machine.

Our mission was to design a vacuum unlike any other available on the market. The IV800 Robotic Vacuum is perfectly suited to clean large, carpeted or hard surface hallways and corridors. With a powerful suction system, helical brushes, dual filtration, and a 16.77 gallon tank, the IV800 Robotic Vacuum will clean circles around manual machines. The IV800 is completely robotic and can thoroughly clean up to 70,000 square feet of floor space per shift — with minimal human intervention. This solution can only be called revolutionary. It's a safe, smart, robotic cleaning machine with the power to measurably boost productivity and keep floors cleaner than ever.

*80% to 90% of
floor care costs
are labor related.
Intellibot Robotics
can reduce your
labor costs
up to 85%.*



Guaranteed Safety

Multiple sensors and redundant secondary systems ensure complete safety — protecting people, walls, furniture and obstacles of any kind.

Intellibot robotic vacuums are **100% accident free.**

The intelligent details make a difference.



Ultrasonic Sonar Sensors

An integral component of the IV800's intelligent system, 23 sonar sensors guide the unit precisely to *Autolearn™* cleaning areas and avoid objects and people.



Paging System

The IV800 maintains constant communication with the operator, notifying the operator and reporting via the control panel when the battery is low, when cleaning is complete or when it encounters any problems.



Bag Filters

The 16.77 gallon tank holds 14 gallon bags. Heavy duty high filtration bags provide a large surface area and improve performance each time the bag is replaced, ensuring consistent suction.

Designed to be smart and durable.

The durable construction of the IV800 Intelligent Vacuum and the powerful suction system make this the ideal machine to thoroughly clean large, carpeted or hard surfaces every day. The dual filtration system increases the life of the machine and improves indoor air quality. Bags are simple to replace and filters just snap into place. Both are easily accessed by opening the waist level hinged lid. The helical brush head and side broom, with static reducing bristles, are constantly moving debris into the vacuum inlet at 1390 RPMs. To get the job done with minimal interruption, the IV800 operates at the low noise level of approximately 70 decibels. The IV800 will produce outstanding results and simply make your job easier.



Brush

Helical designed brush with carbon impregnated nylon bristles reduces vibration and dissipates static charge build-up while moving debris from outer edges to the vacuum inlet.



Filtering System

Dual filtration occurs in the heavy duty bags and the backup filter system, maintaining high indoor air quality. Standard washable polyurethane foam or HEPA filters are available.



Drive System

Specially designed tires utilize a unique compound and pattern to guard against slipping. Tires are connected directly to a precision drive motor, thereby reducing the number of moving parts and minimizing maintenance.



Muffler

The muffler quiets the air exhausted from the vacuum motors and allows the powerful IV800 to operate with minimal noise levels of approximately 70 decibels.

IV800 Features

IV800

ROBOTIC VACUUM



Control and Navigation

In manual mode, the IV800 operates like a conventional auto vacuum. In autonomous mode, it uses its own intelligence to calculate the ideal cleaning path for every room, and cleans all by itself.

Dual Operating Modes

Some areas, due to their complex shapes, cannot be mapped. Dual functionality enables the operator to clean such complex areas in manual mode and then return the machine to autonomous operation for the next area to be cleaned.

Large Capacity Tank

16.77 gallon molded high density polyethylene tank holds 14 gallon bags of debris. Hinged lid opens at waist level for easy access to bags and filters.

Battery Compartment

Four sealed gel cell batteries run an average of three hours on a single charge.

Ultrasonic Sonar Sensors

Sonar sensors detect objects up to 13 feet away and allow the machine to gracefully maneuver around obstacles. It won't run into walls, people or furniture and has a perfect safety record.

Brush Head

Brush is helical designed so bristles are always on the ground, reducing vibration. Carbon impregnated nylon bristles dissipate static charge build-up.

Floating Cleaning Head

No floor is perfectly uniform, so the cleaning head adapts to the floor's contours and cleans every inch of surface. Patented "touch shield" brings unit to a stop with a mere eight ounces of pressure. Cleaning head is offset to allow the robot to clean closer to walls.

Infrared Floor Sensors

Infrared sensors in the touch shield constantly scan the floor ahead to prevent the machine from going down a flight of stairs, while allowing it to pass over floor surface gaps of up to two inches.

Side Broom

Side broom sweeps debris along wall edges toward the center of the vacuum head - debris is then collected by the vacuum suction.

EASY to use,
Even EASIER to maintain.



Operator training is simple.

After a short training course from Intellibot's certified instructors, the operator will be ready to use the IV800 Robotic Vacuum. While the operator runs the robot down the center of the area to be cleaned, the IV800 creates a map for the area using Intellibot's Mapping Wizard™, which is then named and stored in memory. With storage for hundreds of maps, this is a one-time job. For transitions between cleaning areas, the IV800 can be operated in manual mode or it can be programmed — through a series of simple “moves” — to proceed to the next area (or to skip an area) autonomously.

From initial start-up to shutdown, the IV800 constantly monitors and records its own performance and performs its own diagnostics. The machine pages the operator when its job is complete or when it encounters something it can't handle on its own.

Safety is never a concern — the IV800's sensors detect moving or stationary objects in its path and the robot simply navigates around them and continues its work. While the operator performs other more demanding and skilled jobs, the floors are being cleaned by the IV800. Floor cleaning becomes much more efficient, improving your bottom line.

Automatic service and maintenance.

Never worry about future operating costs — our Service & Warranty Program takes risk out of the picture. Our standard one-year Intellibot warranty covers 100% of service and maintenance for the first year, including call out and repair labor charges, replacement parts and regularly scheduled preventive maintenance. We also offer low-cost annual plans that include periodic maintenance calls at your facility from our highly qualified service technicians. Or, you can take advantage of our unique program where your employees are thoroughly trained to perform all standard maintenance. Your Intellibot client manager can help determine which program is the best fit for your company.

User Friendly Operator Controls:

- Ergonomic Control Panel
- Intellibot Mapping Wizard™
- Multilingual Text Support (English and Spanish)
- Onboard Help System
- Built-in Self Diagnostics
- Dual Speed
- Dual Operating Modes (Automatic and Manual)
- Emergency Stop



Your satisfaction is guaranteed.

Intellibot invites you to switch from manually controlled floor cleaning to Intellibot's robotic machines worry free. Our Satisfaction Assurance Program guarantees that you will be 100% satisfied with our revolutionary robotic vacuums. If, at the end of the 90-day period, you do not achieve the expected productivity gains, you may return the machine to Intellibot. This program is offered with every purchase or lease of an Intellibot product.

Intelligent machines need intelligent accessories.

Intellibot's Battery Exchange Kit doubles your run time. This kit includes an additional set of four batteries, battery charger, battery cart and a battery assembly box. The gel cell batteries are sealed, which means they can be safely charged without the need for a well-ventilated area. When the batteries in the machine run low, use the battery cart with rolling transfers to make switching to backup batteries a quick, easy exchange.

Standard washable polyurethane foam and HEPA filters are available for the IV800 Robotic Vacuum, as well as high filtration 14 gallon bags.



20 Amp Battery Charger



180 AH Batteries



Filters

"Not only is Intellibot delivering a fine product, we've also been extremely impressed with everyone associated with the company, from its service techs to senior leadership to the sales guys. Their commitment to service and responsiveness, to addressing our questions and concerns, and their ability to understand our culture are very important to Crothall. We have been extremely impressed!"

Rob Bradford
Regional Vice President
Southeast Region
Crothall Services Group

IV800

ROBOTIC VACUUM

INTELLIGENT FEATURES

Main Computer	Monitors all functions and commands the IV800 to perform memorized cleaning routines.
Drive Subsystem	Monitors and controls the robot's movement and position.
Auxiliary Subsystem	Monitors cleaning components and user control panel.
Controls	Manual and electronic.
Navigation	23-zone sonar sensing system providing the IV800 a 360 degree view of sensing area topography and obstacle avoidance.
Touch Shield	34" (83 cm) wide, black ABS.
Rear Bumper	21.5" (55 cm) wide, black ABS, spring loaded.
Safety & Security	Password and key protected, preventing unauthorized use. Redundant safety systems provided by virtual sonar touch shield, infrared floor sensors and eight ounce contact force touch shield and rear bumper.

VACUUM RECOVERY SYSTEM

Tank Volume	2.25 cubic feet or 16.77 gallons.
Airflow Speed	132 CFM
Motor Type	24VDC, 1/2 HP, 2-stage tangential bypass.

CLEANING HEAD

Brush Head	Carbon impregnated nylon bristles, herringbone pattern.
Brush RPM	1390 RPM
Brush Width	27" (68.58 cm)
Brush Diameter	4.5" (11.43 cm)
Side Broom	12" diameter at 90 RPM

DRIVE SYSTEMS

Drive Motors	Two 24 VDC, servo type.
Brush Drive Motors	One 24 VDC, 3/4 HP, 1800 RPM permanent magnet type, belt drive.
Vacuum Motors	Two 24 VDC, 1/2 HP, 2-stage tangential bypass motors.

PRODUCTION

Cleaning Rate	10,230 sq. ft. (950 sq. m) per hour (avg.)
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BATTERY SYSTEM

Battery Options	Sealed gel cell deep cycle, 180 AH, 24 VDC output.
Run Time	3 hour average - determined by floor surface.
Charger Unit	20 Amp, 24 VDC output, 115 VAC input with automatic shut-off.
Battery Pack Weight	280 lbs. (127 kg) for 180 AH pack
Battery Cart Weight	65 lbs. (30 kg), ball transfers on both cart and machine allow for easy change. Locking casters keep cart stationary during transfer.

CONSTRUCTION

Frame	Powder coated 5052 aluminum and stainless steel.
Brush Head	Stainless steel.
Machine Length	58.5" (149 cm)
Machine Height	42.5" (108 cm)
Machine Width	19" (48 cm)
Weight (machine only)	275 lbs. (124.7 kg)
Weight (with batteries)	555 lbs. (251.7 kg)

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