The Mean, Sheen Cleaning Machines

Janine E. Mooney, Editor

I'm a strong believer in cleaning up after yourself, but sometimes a crazy schedule crowds not only your calendar, but also your home.

As a girl, each morning is a stressful, messy event. Shower – drop the towel on the floor; brush hair – leave the brush on the bathroom vanity; get dressed (five times) – leave the "no's" on the bed, or the floor, or wherever they land. Anyway, you get the idea. When I walk in the door at 6pm from work, it's always fun to see the disaster that I left behind. Then it's: make dinner, go to the gym, do a load of laundry, oops forgot to wash the dishes and don't even open the trash can…

When Friday finally rolls around, my house is a nightmare! And the last thing I want to do on a Friday night is clean, but at that point you really only have two options: get it over with, or go out so you can ignore it until Saturday.

So Saturday morning when I finally decide I cannot live in the chaos any longer, I begin the process of picking everything up, vacuuming, washing the floor, etc. The problem is it takes almost the entire day and frankly, i have better things to do with my Saturdays. Luckily for me, there's been an influx of wireless cleaning robots on the market which means less time cleaning and more time for well, other things. After all of the clothes are removed from the floor, it would be wonderful to have this little robot chugging along behind me eating all of the dust and debris.

The Roomba
"Not only will Roomba do the vacuuming for you, it will do a really good job, like a "that was really on my floor?" type of job. Roomba's patented, 3-stage cleaning system lifts dirt and debris off of carpets, tile, hardwood and linoleum floors so you

don't have to," according to iRobot [1].

New to the Roomba is the Wireless Command Center, an oblong remote control useable from anywhere in the home that lets users steer the Roomba, send it back to its base, schedule a cleaning and adjust its clock. There's also a big "Clean" button, whose functionality is, well to clean. Also on board with the 790 is room-to-room navigation, which utilizes "Virtual Wall Lighthouses."

iRobot [1] describes the feature as, "Adjust to Lighthouse, set the distance of the door opening and place the Virtual Wall Lighthouse outside of the doorway to the room you want Roomba to clean. The Lighthouse will communicate with Roomba via an infrared sensor to contain it in one room until it vacuums the area completely (aka: completes its mission) and then it will move on to the next room and so forth."

The Scooba

After the floors are free from dirt and whatever else found a new home on my light yellow, bamboo hardwood – we call in Scooba!

iRobot [1]states, "Not only will Scooba wash your floors for you, it will do the job without putting dirty water back onto your floors (thank you squeegee-vacuum). Unlike a mop, Scooba's patented cleaning systems use only clean solution from start to finish, efficiently removing up to 98% of common household bacteria."

For both the Roomba and the Scooba, don't bother picking up your dog's bowls, or moving chairs and tables around to allow room for these almost-too-smart robots.

"Using iAdapt, iRobot's advanced system of software and sensors, Scooba washes every section of your floor multiple times to ensure the most thorough coverage possible, getting under and around furniture, along wall edges and avoiding stairs." - iRobot [1]

Seems too good to be true, huh? Well that's not all – there are even more wireless robots that can aid you in cleaning your home. Verro is a pool cleaning robot and Looj is a gutter cleaning robot. Talk about making life easy!

How'd it do that?!
So what technology in the little robots makes them so efficient, so wonderful?

One thing is for sure – a big battery must be somewhere in there. Well we were close, but it is more like a ton of small batteries: 12 Sub-C Cell NiMH batteries.

iRobot uses AWARE Robotic Intelligence System to make many decisions for itself, so minimal human input is required. The AWARE system is made up of multiple sensors that pick up environmental data, send it to robot's the microprocessor and alter the robots actions accordingly. According to iRobot, the system can adapt to new input up to 67 times per second.

While the robot is cleaning, it avoids steps (or drop-offs) using four infrared sensors on the front underside of the unit. These "cliff sensors" constantly send out infrared signals, and the robot expects them to immediately bounce back. If it's approaching a cliff, the signals all of a sudden get lost. This is how the robot knows to head the other way. If the robot knocks into something, its bumper retracts, activating mechanical object sensors that tell the robot it has encountered an obstacle. It will then continuously back up, rotate and move forward until it finds a clear path.

Another infrared sensor, the "wall sensor", is located on the right side of the bumper and lets the robot follow very closely along walls and around objects (like chairs and dog bowls) without touching them. This means it can clean pretty close up to these obstacles without bumping into them. It also determines its own cleaning path using what iRobot says is a pre-set algorithm that achieves complete floor coverage.

In my mind, it doesn't get much better than that. The only question that remains – is it worth the $1099.98 ($599.99 for the Roomba; $499.99 for the Scooba)?

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Links:
[1] http://www.irobot.com