

# Personal Tech

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## Protecting Your Home From Afar With a Robot

By PETER WAYNER

When Robert Oschler, a programmer, leaves his home, he knows it is secure. And if he ever has cause for concern, he can open his laptop and survey the house through the eyes of his watch-dogs.

"I don't have any pets. I just have pet robots, and they're pretty well behaved," Mr. Oschler said. "Fortunately I've never logged in and seen a human face."

His robot, a modified version of the Rovio from WowWee, has a camera, microphone and speakers atop a three-wheeled platform. From anywhere with a Net connection, he can send his robot zipping around the house, returning a video signal along the way.

"As creepy as it sounds, you could even talk to the guy and say, 'Get out of there. There's nothing valuable. I'm calling the police,'" he said.

For all its power and ability, the Rovio is usually found in a store's toy section for about \$170. Other robots from toy makers, like Meccano, are there as well. Outfitting a house with a fleet of robot guards is no longer just for those with the wealth of Bond villains.

Home security is blossoming for toy makers who can match the technical power and flexibility of the computer industry with the mass-market prices that come from large production runs. Low prices are a trade-off, however, because many people find that the reliability of the lower-priced robots is adequate for home experimentation but far from ready for a task like guarding Fort Knox.

"You should buy two," said Mr. Oschler, who lives in South Florida.

The off-the-shelf unit is ready to explore after a simple installation involving the computer, but Mr. Oschler added a few enhancements to the software, which he distributes at robodance.com. His version improves the audio and video quality and offers more sophisticated programming options that create routines and paths for the robots to follow.

Mr. Oschler has even wired his robot to a headset that picks up the subtle electrical activity produced by his brain.

"When I tilt my head, the robot goes left. When you do that, it's a Matrix-like moment," he said proudly.

Other robot owners have modified their guard-bots, too. Peter Redmer, of Illinois, an online community manager at robocommunity.com, said his site gathered the collective wisdom of the toy robots. One hobbyist in China, Qiaosong Wang, posted pictures of his Rovio after he added a small fire extinguisher and software that can detect the shape of fire.

"One of the goals is to create something that the consumer can enjoy without pricing it at \$5,000 or \$10,000 with military-grade technology," Mr. Redmer said.

Others have experimented with adding software for aiming the camera or enhancements like better lights for patrolling at night.

Mr. Redmer said he was most interested lately in the Parrot AR.Drone, a flying robot priced at \$300. "It flies.



Spykee, the Wi-Fi robot that allows its owner to command it remotely, and an appropriate warning sign.

### ONLINE: PERSONAL TECH

This week's Web features include Gadgetwise posts on LED-equipped vodka bottles, the iPad case as modern Trapper Keeper and mobile apps from hotel chains.

nytimes.com/gadgetwise

How much cooler does it get?" he asked.

Not all of the innovation is attached to something that moves. Several companies are matching sophisticated artificial intelligence algorithms with video cameras. These systems monitor the video feed and sound alarms when objects of a certain shape appear.

I tried some software called Vitamin D that lets me watch my office. It raises flags — by beeping — whenever anyone walks in. It requires a computer and de-



Robert Oschler wearing the Emotiv headset to steer his Rovio robot by tilting his head. He also added software to enhance the video and audio.

## Managing Your Passwords, With a Little Help From an App

Lots of otherwise rational people use insecure passwords — "111111," anyone? — or they store hard-to-remember passwords in a Word file.

Either way, it's a generous gift to criminals.

And yes, it's highly unlikely that one's data will ever be stolen. But mobile app developers are lining up to sell people a little peace of mind.

The short list of password managers includes LastPass (on all smartphones, free for limited features or \$1 monthly for a premium version), 1Password (\$10 on iPhones) and SplashID (\$10 on all smartphones).

The price of entry is clearly steeper than the cost of the latest throwaway game, but the bonus is that the apps can manage accounts on both a smartphone and a desktop computer.

These apps can challenge a user's patience, as is the case with just about any software known to man. But I found LastPass the least challenging of the bunch.

After installation, the service asks for a personal e-mail address, then asks for a master password for LastPass. The next step is to download LastPass to the browser on a desktop computer. This, too, was easy.

Why involve the desktop? Simple. Users who have been surfing the Web for years have most likely stored dozens of passwords in the browser's internal memory.

When a user opens the LastPass browser extension, it will, in a couple of easy steps, transfer all those stored passwords to a smartphone. LastPass says its encryption technology prevents the service from reading the passwords at any point.

Downloading the browser software also frees a user from having to remember login information on that computer. (You can log off the service when you leave your desk.) And, unlike the other apps I tested, the LastPass desktop software was free.

The real trick, though, is what it does for phones. Using the app, nearly any Web site will have login credentials filled in.

In a perfect world, a user could would open a Bank of America app, for instance, and LastPass would automatically fill in that login and password information, too. Unfortunately, LastPass cannot pull off that trick. Instead, information from the LastPass app must be pasted into the Bank of America app.

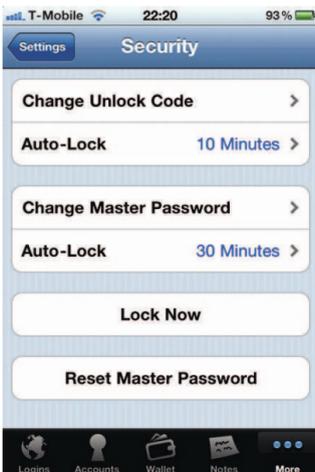
The app uses its own mobile browser, so the format is sometimes less user-friendly than it might be on a company's dedicated app.

Still, LastPass can remember passwords and keep them secure.

Whether that's worth \$12 annually depends, of course, on how much you worry about security and how much you value convenience. For me, it's money well spent.

Another option, 1Password, was very good, but I found it slightly harder to use than LastPass. The desktop software (\$20 for Windows, \$40 for Mac) transferred to my iPhone the login and password information I had stored in my browsers, for instance, but the process required more steps.

Adding accounts into the desktop app and syncing my computer with my iPhone was also more complicated than with LastPass, although I completed the task within 20 minutes. The browser in the 1Password mobile app functioned as smoothly as that of LastPass.



The short list of password managers for smartphones includes 1Password, above, and LastPass.

All good, in other words. Just not great.

The company offers a 30-day guarantee, during which time a refund is possible. The company also has a \$15 app, 1Password Pro, for people with both iPhones and iPads.

SplashID was considerably more challenging to use than its competitors. Its desktop app (\$20 for Windows and Mac) added a layer of work that the other services avoided. (SplashID required me to change my Safari settings to 32-bit mode, for instance, which took about 10 minutes.)



The bigger headache was populating the app with all the logins and passwords I previously used in Safari. Whereas LastPass scanned my browser for this information and transferred it to my iPhone app, I could not figure out how to get SplashID's import function to work. I resorted to typing everything manually, using forms that were at times hard to understand.

After that tedium, the app synced with my iPhone quickly enough. Some users have complained about the app freezing during a sync procedure, but I had no such problems.

tests video signals from attached cameras. (A single-camera version is free, and the cost can rise to \$199, at vitamindinc.com.)

Archerfish makes surveillance cameras with sophisticated filters for detecting and distinguishing people, vehicles and other random movement. The models, at myarcherfish.com, include either one or four cameras for \$400 to \$1,400.

I also spent some time with a Spykee, a robot made by the French company Meccano that sells toys in the United States under the brand name Erector. Several models of Spykee robots are at spykeeworld.com, for \$110 to \$300.

The company, perhaps best known for its Erector sets, designed the Spykee as a kit that required some basic assembly. The essential gears and electronics come in a prebuilt base, and attaching the arms takes an hour or so.

"It's a toy, but many people use it as surveillance robot," said Jennifer Briand, the product manager for Spykee. By aiming at children, Ms. Briand said, "We

wanted a product that they could drive on their own like a spy, play jokes on their brothers and sisters, and protect their bedroom because at that age they don't like their sister coming in."

Still, she said the use as a surveillance robot was a bit of a surprise.

"At the beginning we thought that very young adults would be very interested in the product, but today we know that we have a lot of adults from 25 to 55 that like to play with Spykee. When you ask them what the favorite function is, they say they really like to drive it when they're out of the home."

She is right. It was fun to drive the robot throughout the first floor of my home, chasing the cats and seeing if anything was somehow different. And when I was done checking on the living room, it made sense to check on the kitchen. No one ever broke in, but the cats seemed to move around more.

While everything worked correctly, there were definite physical limits. The Spykee cannot go up or down stairs. Small bumps like the edge of a carpet do not cause trouble, but taller ones can be a brick wall. The engineering is quite good, but it's not easy to trust it with serious responsibility. It can be difficult, for instance, to dock the device with the recharger. The wheel treads seemed to become uncalibrated and the robot would curve to one side.

Steering something only a foot tall takes some adjustment. I bumped my robot's head on a low overhang because I overestimated the headroom, and it tipped over. I tried yelling for help remotely, but no one heard me. There was no choice but to wait until I got there to pick it up. My wife and I started dreaming up work for Spykee. When she suspected the cats were not using the litter box in the basement, the robot was sent below to watch. The battery ran out long before we spotted any wayward cat. The robot could also look for basement flooding after a big storm.

Many users are starting to use the word "telepresence" to describe controlling the robot remotely, a word that some videoconferencing companies use to describe high-resolution connections from well-lit rooms. After looking at the image and driving around the real world, it is easy to start imagining that you are really there.

My children, aged 10 and 7, loved driving the robot, and even started asking for the robot to meet them at the door after school. Now if only the robot could pay college tuition.

Like its rivals, SplashID can surf the Web from within the app, but again this feature was complex, so I resorted to copying login information and shuttling back to my phone's browser.

Still, SplashID has some useful features. It can be set to close automatically after specific periods, for instance, to discourage snooping, and users can e-mail records from within the app. (The mail is encrypted, to prevent data theft.) Plus, the desktop program can securely store information on anything you wish, not just passwords.

This category is filled with well-rated competitors that serve a clear need. And since the apps command such high fees, companies will most likely improve the state of the art at a fast clip.

But for now, at least among this group, LastPass shall be first.

### Quick Calls

With the National Hockey League and National Basketball Association seasons starting, both leagues have introduced mobile apps. N.H.L.'s GameCenter (free, on all devices) offers live scores and stats for teams and players. GameCenter Premium (\$20) includes video and live audio, and GameCenter Live delivers real-time game video to Verizon BlackBerry and Android phones (\$80), an application that will be available to iPad users at \$169 when it is released in the coming weeks. The N.B.A. Game Time app is free on iPhone, Android and BlackBerry devices, with features similar to the N.H.L.'s free app. Upgrade to video highlights and live audio for \$10 on iPhones and Android phones, or pay \$50 for the League Pass Mobile live video feature on iPhones and Android phones.