

# For Safety, Health, and Well-Being

By William Lumpkins (Sanitate)

## SCHLAGE SENSE SMART DEADBOLT

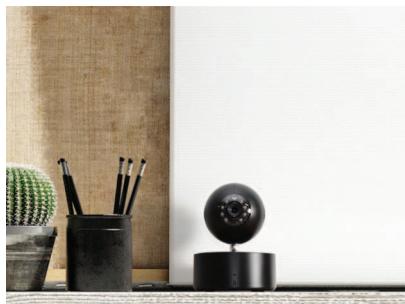
Schlage sent us the Schlage Sense smart deadbolt to review (Figure 1). In 1909, Walter Schlage's first patent was a door lock that could turn lights on and off for Western Electric. Walter's patents and his company, the Schlage Lock Company, went on to become part of the Allegion brand of security and safety products in 2013. They currently sell the Schlage Sense smart deadbolt at major retailers in the United States and abroad.

We installed the Schlage Sense smart deadbolt on the front door of our prospective smart house; the installation was relatively easy, the instructions were simple to follow, and the link to the online videos was helpful. Make sure to keep any paperwork until after setting up the lock; a special code found on the paperwork is used to register the lock. After installing the lock, which uses four double-A batteries (unfortunately, not rechargeable), I downloaded the Schlage Sense application from the Apple App Store. With the special code found on the Schlage paperwork (that I dug out of the trashcan), I was able to register the deadbolt with my home Wi-Fi access point. After it was set up, we tried a few of the listed features. In theory, you can use Apple's Siri to unlock the lock with your Apple phone. It could be due to the poor cellular signal coverage in my test area, but we found that it took up to



**FIGURE 1.** The Schlage Sense smart deadbolt.

three minutes for the door to unlock via the Siri voice commands. It was much easier to type or press the keypad to enter the house. I loved the lock; there's no need to carry a key to enter the house. It's too bad that there isn't an option to mount a camera to allow facial recognition for door entry but, perhaps, in the future it will be included.



**FIGURE 2.** The Remocam. (Photo courtesy of Remocam.)

## REMOCAM

Speaking of cameras, Remocam sent us their home video surveillance product called *Remocam*. Remocam began as an offshoot of a South Korean security camera company that wanted to sell to the North American market.

The Remocam (Figure 2) is relatively small and easy to set up. All you have to do is plug in the power, connect it to your Wi-Fi, and plug in the optional speaker/microphone jacks and external secure digital card. The toughest part of the installation was getting the Remocam camera to recognize the quick response code image on the smartphone. Remocam tells me they are still working out some bugs. The product has a motion detector built in, and we noticed some odd behavior that we finally figured out. (By the way, whoever says that engineers do not believe in the supernatural have not met our engineers.)

The situation was as follows. We set the Remocam up in a house with two levels and then went out to a coworker's office and showed him the Remocam. The Remocam lets you remotely move the camera, allowing you to pan the room via smartphone controls. We panned the camera up to a second-story room and back a few times. Then, we left and went to another coworker's office. Then, about an hour later, we received a "Motion Detected" push notification on our smartphone. We asked around, and everyone agreed that there was no one left in the test house. We looked at the video clips and saw that motion was detected and that the camera

would pan up to a second-story room (the Remocam was in an open atrium space that could see up to multiple levels in the house). For a few minutes, we wondered if it could be a supernatural anomaly and if we could make a lot of money documenting it (engineers dream of riches as well). Then, we realized that this was the same location that we had shown to various coworkers earlier in the day. We surmised that the Remocam does not have a blanking circuit in place when the camera is told to pan or move, which then triggers its own motion detector, and, most likely due to cellular traffic delays, we did not get the push notifications to our test smartphone until hours later (so much for Ghostbuster fame and millions of dollars).

Another great feature is the two-way communication aspect. With the built-in microphone and speaker jacks, you can scare the bejesus out of your coworkers—I mean notify them that you are running late to the meeting. All kidding aside, this is really a home-use product and probably would not be allowed in a company setting, as it also comes with infrared vision for recording in the dark. For the retail price of US\$199, it is a great indoor product (we say indoor as it is not weatherproof and most likely would be stolen in a few hours outside of the test house). We hear that they are coming out with an outdoor product called the *Remo-Bell*, which we hope to review.

## MOCACHEART

For the health conscious, we have a couple products up for review. The first comes from MOCACARE and is called *MOCACHEART* (Figure 3). It is a blood-oxygen-level (a metric related to fatigue and respiratory function) and heart-rate (an important indicator of your heart health) monitor in a tiny, fit-in-your-palm sized package. For added functionality, the weather and your location are recorded with the health metrics. This allows for big data analytics to provide a clearer image of current and future health issues for medical professionals and the resident home doctor.

We downloaded the app to our Apple iPhone and turned on our smartphone

Bluetooth radio (the MOCACHEART uses Bluetooth 4.0). Heart rates and blood oxygen levels were measured, and it was fun to track the measurements over time as well (in our case, over a week period). We wondered if it would provide the same level of resolution as a hospital-grade blood-oxygen monitor (imagine finger clip on pulse oximeter), but we found that it was off consistently by about



**We found that many families sit around with their electronic devices plugged in and charging but still in the same room.**

10–15%. However, for a consumer-grade product, it is very consistent. We found it to be more consistent than the Apple iPhone health apps and the Samsung Galaxy 5 health solutions. The company also sells handy iPhone and keychain cases to hold the MOCACHEART. It would be wise to purchase these items because the MOCACHEART is small and can easily fall under the couch, bed, or other furniture. It currently sells for US\$149.

## FIERA AROUSER

A complaint in some relationships is the lowering of the female libido over time. This may be caused by hormonal changes, stress levels, or lack of sleep. The Fiera Arouser is a medical-oriented product developed by female health professionals to assist in the reawakening of their physical response to their partner (Figure 4). Leah Millheiser, M.D., OB/GYN, and chief scientific officer of Nuelle, is quoted on the com-



**FIGURE 3.** MOCACHEART. (Photo courtesy of MOCACARE.)

pany's website: "All of us at Nuelle value consumer and scientific information to guide us in bringing the best product to our customers."

I have to admit that it was difficult to find female reviewers who were willing to test the product and share their test findings. We found an IEEE Consumer Electronics Chapter member who was willing to test and share her results. The Fiera is worn for a few minutes in advance of sex to help the female participant feel more in the mood. Nuelle calls this *Before-Play*. The Fiera uses gentle suction over the clitoris to create feelings of readiness and excitement [1]. The Fiera is rechargeable; it uses a micro-USB cable to recharge itself. The tester found that if a constant seal with the female genital area was not secure, the device would go into a deep sleep mode. The tester had to repeatedly reset the device and reposition until it would activate successfully. Once the tester got the unit to operate, she told us that it was quite enjoyable to use. Her male partner later thanked us profusely for reenergizing their relationship. The Fiera retails for US\$250, but we saw it at some sites for US\$200.

## ACCELL PRODUCTS

Accell Corporation sent us two products to evaluate. The first is the Accell Mini DisplayPort 1.2 to HDMI 2.0 Active Adapter (Figure 5). The mini adapter fit nicely into the Microsoft Surface Pro 2/3/4 docking stations; I streamed 4K (4096 × 2160 at 60 Hz with 8-bit color) video content through them via a high-end video projector (thanks L-3 Communications). We did not detect any video artifacts. It retails for US\$37.99.



**FIGURE 4.** The Fiera Arouser. (Photo courtesy of Nuelle, Inc.)



**FIGURE 5.** The Mini DisplayPort 1.2. (Photo courtesy of O&S Services.)



**FIGURE 6.** The Powramid. (Photo courtesy of O&S Services.)



**FIGURE 7.** The Titan iPhone lightning cable. (Photo courtesy of Fuse Chicken.)



**FIGURE 8.** The Titan iPhone cable with chainsaw. (Photo courtesy of Fuse Chicken.)

The other product piqued our interest a bit more. It was the Powramid Power Center and USB Charging Station (Figure 6). Basically, it is a power strip and USB charging strip in the shape of a pyramid. We found that it became a quick favorite of the gamers in the office, as well as at family gatherings. The last sentence might throw some readers off: “family gatherings”? We found that many families sit around with their electronic devices plugged in and charging but still in the same room. I suppose this gives a sense of tribal kinship. Oops, I am starting to sound like sociologist.

The biggest challenge we had was reading the instructions. There is a plastic cap on the top of the Powramid that protects the power button. Two engineers studied the unit for a while, but it took a child, who walked over, pulled off the cap, and pressed the button, to show them that it wasn’t broken. It has six power plugs and two high current USB ports. Our only complaint was that there weren’t more USB ports. The product retails for US\$37.99 but we saw it for US\$25.99 on amazon.com.

### ROSEWILL COOKING APPLIANCES

For the homemaker, college student, or engineer working on the weekends in the lab, the following two products are quite handy. The first is the Rosewill RHAF-15004 1400W Oil-Less Low-Fat Air Fryer, 3.3-quart (3.2 L), black. We found that *oil-less* is a marketing term; a better term might be *less-oil* fryer. It did need some oil to fry the food but much less than a normal deep fryer would use. The fryer seems to use very hot air with a whirlwind function inside of the unit produced by electric heaters and powerful blowers. It is really meant for a single serving of food. Imagine a large serving of fries or a single serving of fish.

This product was tested by over 20 women and 10 men, ages 17 to 62. One of the features is a built-in, 30-min timer. This allows the person cooking to set the timer and walk away. After the timer goes off, the heat shuts off. Everyone loved it and wanted to buy one. We may have to see about becoming a distributor. The product retails for US\$37.99.

We were also sent the Rosewill RHA1-13001 1800-W Induction Cooker Cooktop. It was my first time using a magnetic induction electric stove top. It was fun to use, but if you use nonmagnetic pots and pans, they can slip off easily—or in my case, if you bump them with wide hips, they easily slide off the stove top. It heated very quickly and was better than a microwave for many food items. The test unit came with a magnetic simmering pot. Oddly, we found that this slipped off the smooth surface as easily as a nonmagnetic pot. Our unit might be defective. Besides the issues with magnetism, the product works great.

### TITAN IPHONE CABLE

Fuse Chicken sent us their very sturdy Titan iPhone cable, a lightning to USB cable. Generally, we do not review pure mechanical products, but we had to make an exception again. I am constantly destroying my phone charger and headphone cables by rolling over them with my office chair. It does not seem possible to damage this cable, though. Figure 7 shows the cable in question, and Figure 8 shows someone’s attempt to destroy it with a chainsaw. It holds up very well. This products retails for US\$35.

As always, the comments and opinions in this article are mine alone and do not represent the stance of the IEEE. Feel free to send comments to xillia@yahoo.com.

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### REFERENCE

[1] (2016). Fiera, arouser for her. *Nuelle, Inc.* [Online]. Available: <https://shop.fiera.com/product/fiera/>

