

ALABAMA COUNCIL ON DEVELOPMENTAL DISABILITIES

# **ACDD** *Advocate*

Volume VII Number 3, Fall 2012

**AUTISM  
AWARENESS  
and ACCEPTANCE  
in ALABAMA**



Part of Alabama's Universal Design revolution—

# Braswell

## implements Assistive Technology in residential settings



**K**evin Braswell was born in Birmingham and grew up Mobile. As a student at Auburn University, he developed into a self-described “techie guy.” He began his professional career in Information Technology at Accenture, where he developed software.

“As do many people, I reached a point in my career where I decided I wanted to work on my own. I also wanted to continue to use my technology skills,” Braswell said. “I became interested in smart home technology where you can control various systems, such as

lighting, security, and HVAC from a touch pad or panel.”

As a child, Braswell had a stroke and spent time in rehabilitation since he experienced moderate paralysis. Of course, back then there were no Assistive Technology devices on the market. After suffering a second stroke a few years ago, Braswell was able to take a renewed look at smart home technology.

“At this point, I took a step back and thought that maybe I could re-purpose some of the smart home equipment in my house,” he said. “At heart I was still a techie guy, but I

also knew deep down that a lot of people could benefit from this technology. So now I customize equipment to meet various Assistive Technology needs. It is a great fit for me. I have sort of been in the shoes of people with various disabilities so I know how much freedom can be won through the often-simple applications of Assistive Technology. From there, Smart Care was born.”

Auburn resident Eric Peebles is one of many people who have benefitted from Braswell’s innovative Smart Care designs. (See sidebar on Peebles in this issue.)

“The iPhone is Eric’s ‘go-to’ device so we first fashioned a mount that positioned his iPhone on his power chair so that Eric could easily use it. The iPhone runs an application, software that controls his environment. We have installed eight lights, a programmable thermostat, and a motorized door lock that interfaces with his automatic door opener. For example, when Eric is ready to leave his home for the day, he can push a button on his iPhone that is programmed for ‘GOODBYE.’ The system will then unlock the deadbolt, open his door, set the thermostat to the desired level, turn off the lights and the television. Once Eric is outside, the system automatically closes and locks his door. With Smart Care, we can build unlimited automated programs. For instance, Eric was worried about high utility bills because he has had caregivers leave the window open with the air conditioning on. We programmed Eric’s Smart Care system so that if a window or door is open for a certain period of time, the system will turn off the HVAC. The Smart Care system has greatly reduced Eric’s power bill. The possibilities are endless.”

Braswell has integrated Eric’s Smart Care system with his television and DVD player so that he can also control that equipment with his iPhone.

“Standard remote controls can be challenging for someone with a disability because they require line of

sight. For instance, it can be difficult for someone in a power chair to point a remote directly at a television. Smart Care, however, does not require line of sight. Instead, it uses a home network and infrared emitters so that the television (or any AV equipment) can



**“The iPhone is Eric’s ‘go-to’ device so we first fashioned a mount that would hold his iPhone on his power chair and make it accessible by his remote. The phone runs an application, which is software that can control his home environment. We have wired seven or eight lights, a thermostat control, automated door locks, and interfaced the app with his door opener. For example, if Eric is ready to go and leave for the day, he can run the app on his iPhone that is programmed for ‘GOODBYE.’ This app will then unlock the deadbolts, set the thermostat, and turn off the lights and the television.”**

be controlled from any room in the house. With Smart Care, a person can also turn off the den television from

the bedroom using a GOODNIGHT or ALL OFF command. With that same command, the system can also be programmed to turn off the lights, adjust the thermostat, or lock the doors. We can also add cameras so that when the doorbell rings, the person at the front door can be viewed. What we did in Eric’s case was to customize Smart Care to meet Eric’s specific goals. That is what AT is all about.”

Braswell recently received an ACDD grant to promote awareness of AT and Universal Design in Alabama. The grant has two components: Universal Design and Smart Home technology.

“A central goal is to create awareness through an educational campaign. The grant will allow us to unite stakeholders such as Independent Living Resource Centers and other organizations that focus on assisting people with disabilities with members of the Alabama housing industry, to promote the benefits of UD and AT. The ultimate goal of educating our landlords and homebuilders is to produce housing units for people with disabilities. The coalition could create a housing certification that meets certain criteria like LEED (Leadership in Energy and Environmental Design), which is a voluntary, consensus-based, market-driven program that provides third-party verification of green buildings.”

“We want to establish guidelines like LEED for accessible and smart homes. This type of certification should lead to a ‘stamp of approval’ so that someone with a disability could easily search for a home or apartment that meets their needs. We hope to develop a search term in Multiple Listing Service (“MLS”) and, of course, we want to leverage the Council’s excellent AL-HousingSearch.org program.”

“With universal design and smart home technology, independent living for people with disabilities is definitely achievable. At Smart Solutions, our motto is simple: Smart Homes, Smarter Living.”



Eric Peebles is living proof—

# Smart Home Technology

provides quality of life, cost controls

**E**ric Peebles is a believer in Smart Home technology. Peebles, who has severe disabilities to go

the smart home provides, there may be other advantages to the emerging technology.

healthcare programs a lot of money,” he said. “I had known Kevin as a vendor from our AlaTec conference and we began talking. The young kids who work for me might sometime leave a window open and run up my power bill, something like that. So there are simple, practical reasons for this. But we agreed that we should try to turn this into more than just installing a door opener. I knew this would have a large up-front expense, but I am willing to take that risk because my theory is all about providing a positive model for people with disabilities. If this could help people stay in the environment of

**“Smart home technology in general is good for people with significant disabilities like myself because it leads to greater independence,” Peebles said. “As a result of the innovations we made in my home, I am now without a caregiver for four to six hours a day because I can use the technology to control much of my own environment. Just to be able to go outside and turn the lights on and off by myself is a major sea change in my home environment.”**

along with a resilient spirit, recently worked with Kevin Braswell and Smart Care to upgrade his Auburn condominium with smart home technology.

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Peebles said that in addition to the greater freedom and independence

“From a policy perspective, I think that in the long run this could save



their choice for longer than it otherwise might, this is good. This is a game changer.”

Peebles said most programs for people with disabilities across the country allow the integration of IT into the market and home. He wants to see more of that.

“If we can get the medical community to buy into this and help support people with disabilities to front that one-time cost, it may very well pay for itself in the long run. Once the technology is in place, it’s there to stay. The expense goes away and the supports remain in place. Fewer caregiver hours will add up over the years. And this isn’t just for people with disabilities. This kind of technology could also help people to age in place. It improves quality of life for many different populations.”

Peebles experiences that quality every day.

“When Kevin and I had most of the program in place and he was preparing to come back the next week and fine-tune everything, I sent him a text. I had opened up my door, gone out onto my porch, and read the morning newspaper on my iPhone all by myself. Little things like that matter. It’s about quality of life.”

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