

Makers in Memphis

A national DIY movement finds a home in the Mid-South.

BY GARY BRIDGMAN

THE WOULD-BE BURGLAR COUNTS HIMSELF LUCKY HE SAW an interior light switch on and immediately spotted your shadow moving across the window curtain, giving him time to flee. Not that anyone was home. The burglar is frightened away by a cheap motion-detector you plugged into a hobby microcontroller that turned on the electric motor that slowly waved a plastic fin in front of a lamp.

No, it's not that scene from *Home Alone* but a practical example of the many kinds of devices people can hack together with like-minded tinkerers thanks to the "maker movement" — inventors, hackers, and artists forming local groups around the world — that is now also emerging in Memphis.

"It's a gym for geeks," says Brett Henley of the MidSouth Makers, describing the three-year-old group's community workshop tucked away in the light-industrial south end of Bartlett's historic district. The facility is bristling with tools and technology ranging from a glass kiln to a sandblasting booth to cutting-edge 3D printers that Henley's colleagues built from parts they made on other 3D printers.

Much of what the group produces seems to be more tools for making other things, but it's a normal pattern of incremental development in the maker movement. Educating and encouraging each other is as important to the MidSouth Makers as building cool stuff.

Makers love to tweak, disassemble, re-create, and invent new uses for technology. When they work or goof around together — pooling their money and tools — their most interesting projects bridge the gap between digital and physical, creating practical or quirky devices normally beyond the capabilities of basement inventors.

The maker movement got its name and its flagship publication in 2005 when tech publishing executive Dale Dougherty launched *MAKE* magazine. Dougherty coined the term "maker" to replace or rebrand "hacker," a term too intertwined with cyber crime. The first issue showed readers how to make a \$14 video camera stabilizer from household items, how to take professional-quality aerial photos using a kite, how to tame a jumble of wires into a 5-in-1 network cable, and how to read the magnetic stripe on a credit card "to

find out what your credit card company really knows about you." Since then, more than 200 local maker groups have set up "maker spaces" across North America.

While the maker movement attracts many members from the tech sector, its attraction

Americans were still accustomed to mending their own clothing, repairing machinery, making toys for their children and building or expanding their own homes. As this tech-influenced DIY community gained momentum, makers began to evolve from hobbyists into entrepreneurs, spawning their own markets and creating new products and services. Despite the movement's grass-roots, anarchic vibe, these bands of inventive makers equipped with open-source technologies have begun to inspire new innovations in manufacturing, engineering, industrial design, hardware technology, and education.

The first three MidSouth Makers were Daniel Hess (current president), John Wood, and Kevin Dunn. At first, the group met every week at Republic Coffee to recruit members and plan their programs. By the end of 2010, they raised enough money to rent workshop space adjacent to the old Defense Depot facility off Airways. After 18 months, the group moved to the more accessible space in Bartlett.

Everyone at MidSouth Makers seems to have a passion. Claudio Donndelinger's is 3D printing. When he joined MidSouth Makers, he was a repair technician with a cellular company. After mastering 3D printing technology, he found a new job with Aleph Objects, Inc., manufacturer of the Lulzbot 3D printer, working remotely as a tech-support representative. But 3D printing doesn't dominate Donndelinger's attention at Mid-

South Makers. He's very interested in his fellow members' plans to build a "go-kart couch" hybrid this winter.

"We try to be diverse and encouraging," Ferguson says. "We're here to serve our members, whatever they want to learn how to do — programming, welding, glass, etc. If you are capable or motivated to do something for yourself, we typically have somebody who can help you get started."

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is rooted in more old-fashioned impulses, analogous to the DIY urban homesteading culture. And like urban homesteading practices (canning, back-yard chickens, front-yard vegetables, knitting), maker practices can either save time and money or suck time and money away, albeit in entertaining ways.

"My grandfathers and great-grandfathers were lodge members," explains Joe Ferguson, the volunteer facility director for MidSouth Makers and organizer of a recent HackMemphis event. "It's that kind of community: small, localized groups of men and women. It's more of a lifestyle or a mentality than anything else."

Until well into the twentieth century, many