

THE LEAGUE OF extraordinaire

The geek darlings behind **Synn Labs** have created feats of fancy for the likes of **Google**, **Disney**, and the band **OK Go**. Now it's time for their biggest challenge yet: Create a business from their techy passion projects.

by **Chuck Salter**

photographs by **ANGELA BOATWRIGHT**

nerdy NERDS

“We’re a sensationalism service,” says Brent Bushnell.

Ask cofounder Adam Sadowsky and he says, “We’re a one-stop production company: We make physical art that moves people.”

“We want to be the ‘engineering is cool’ group,” Bushnell adds. Another cofounder, Eric Gradman, sums it up this way: “We’re a glorified drinking club with an art problem.”

Synn Labs, the art collective/budding company that Bushnell, Sadowsky, Gradman, and four others founded last year at Barbara’s bar at the Brewery Art Colony in Los Angeles, is all that and more. It’s the best of what happens when a bunch of nerds, including a physicist and a psychology PhD, get together to obsessively create something mind-blowing simply because they love the challenge.

Synn’s first official project was to help build the complex series of

chain reactions that performed simple tasks—known as a Rube Goldberg machine after the legendary cartoonist who devised the concept—at the heart of indie rock band OK Go’s “This Too Shall Pass” video. After it became a viral hit in the spring of 2010 (20 million views and counting on YouTube. Check it out—again. I’ll wait), corporate America came calling. Everyone from Google to Sears has tapped Synn to build something that inspires wonder, gets their brand noticed, and is infused with the kind of unbridled joy that tends to get squashed out at most companies.

Synn is discovering that the playfulness game can be a tough racket. Most clients just want what worked for the last guy, and Sadowsky, Synn’s president and sole full-time employee, insists, “We’re not a Rube Goldberg company.” These guys can make a car-battery commercial beguiling, but it may take some beer and an all-nighter in the desert to do it. And clients like Sears . . . well, that’s not how Craftsman tools get made. Can these nerds transform their art collaborative into a true business without losing its mischievous, anarchic spirit? It would be their most audacious project yet.

Synn is itself the embodiment of a Rube Goldberg machine: an eclectic cast of characters, featuring seven founders and some 50 volunteers, ages 24 to 40, whose assembled talents cause a domino effect of creativity. “I have a hard time categorizing them,” says Cristin Frodella, a senior product-marketing manager at Google who hired Synn to build a machine to publicize its global online science fair, which was set to launch in January. “They’re fun, smart, geeky, and really plugged-in.” Gradman, who at times sports a red Mohawk, is a fire-juggling circus performer, rock musician, semiprofessional whistler, and software engineer. Bushnell is a video-game developer, serial entrepreneur, and Silicon Valley royalty (he’s the son of Atari founder Nolan Bushnell). Heather Knight, the only woman among the dozen or so regulars, has worked at both the MIT Media Lab and NASA’s Jet Propulsion Lab and is earning a PhD in robotics at Carnegie Mellon while simultaneously starting Marilyn Monrobot Labs, a robot theater company. “It was cool and all, making things for space,” Knight says, “but I was looking for a creative outlet.”

OK Go front man Damian Kulash set the Synn machine in motion. The band, already known for imaginative productions such as its dancing-on-treadmills hit in 2006, thought a music video featuring a Rube Goldberg machine would be captivating. They just needed someone to build it. In late 2008, Kulash, through his nerd circles, posted the project on the online discussion boards for Mindshare L.A., a monthly gathering of art and tech hipsters run by Synn cofounder and designer Doug Campbell. (Think TED with booze and a great DJ.) The Synn members, who banded together after meeting at Mindshare, applied for the OK Go project because it sounded like fun.

“They definitely had the right mix of talents,” Kulash says. Despite their inexperience—this was Synn’s first time working together and its first Rube Goldberg machine—Kulash chose

them because “I thought having a large group of people would provide different ideas that would help the machine feel more musical.” Synn was also willing to work for “low dough” over six months, and like Kulash, they were creative workaholics. A revolving group of staff and volunteers pitched in when available, creating a sense of chaos. “The project was a wild, untamed beast,” says Kulash, who served as artistic director. Many of the components required dozens of iterations before they worked and looked film-worthy. “We were winging it,” says Synn’s Hector Alvarez, a founder and a former ad agency art director. “We spent months learning the physics.” The finished product—89 specific interactions, from tumbling dominoes to raining umbrellas and a TV-smashing sledgehammer, all in sync with the music—took 85 takes to execute in a single shot.

“I don’t think any of us anticipated it would be seen as a skill set that’s beneficial to other companies,” says Sadowsky, 40, a serial entrepreneur who has started video-game and tech businesses. But the unintended consequence of the Rube Goldberg machine—its 90th interaction, if you will—is that the phone started ringing. The company has since built RGMs for both Disney and *The Colbert Report*. It created a “DNA Sequencer,” a 100-foot music-pulsating light sculpture in the shape of a double helix for Glow, an outdoor public-art event in Santa Monica. The group consulted on stunts for a TV game show and is in talks to make spectacles for a Las Vegas hotel and the opening of a Hollywood movie. It’s building two pieces for Coachella, the arts-and-music festival in California, a natural fit for these Burning Man regulars. And this being L.A., Sadowsky, a former child actor who appeared on the 1980s Jason Bateman sitcom *It’s Your Move*, has already met with TV networks about developing a reality show to chronicle Synn’s adventures. As of December, the company had generated around \$350,000 in revenue—a good start, but not enough to support a full-time team.

As their eclectic project list indicates, Sadowsky and company aim to strike a balance between corporate projects that pay the bills and ones that are simply fulfilling. In a perfect world, each project would be both, as with its work for Google’s science fair, where a hamster running on a wheel triggers a chain reaction that ends with neon-orange lava erupting from volcanoes on a world map. “We want to show through spectacular displays of physics or robotics that a bunch of nerds can have a fun time and do great stuff,” says Bushnell.

But for most clients, they’re buying buzz and not the messy, nerdy process behind it. After directing the OK Go video, Zoo Film Pro-



THE ILLUSIONIST
Dave Guttman



THE GAMER
Brent Bushnell



THE PRODUCER
Hector Alvarez



THE RINGLEADER
Adam Sadowsky



THE ROBOTICIST
Heather Knight



THE FIRE STARTER
Eric Gradman



THE CONNECTOR
Doug Campbell



THE MAD SCIENTIST
Dan Busby

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ductions director James Frost brought in Synn on a commercial for Sears’s DieHard batteries. Synn set out to create what must be the first car organ: 24 cars (and their horns) powered by one battery and controlled by a keyboard. After wiring the vehicles through the night out in the middle of the desert, it wouldn’t play. “The creative director of the agency said to me, ‘What is going on?’” Frost recalls, indicating that the plaintive cry was less restrained than his retelling. “When the client comes to the shoot, they expect it to work.”

“I asked Adam [Sadowsky], ‘What happens if I can’t get it to work?’” Gradman says. “He said, ‘They’ll probably sue us.’” But Gradman solved the wiring issue, and mod icon Gary Numan was able to play his 1979 hit “Cars” on the car horns. Synn embraces this flirtation with disaster as a badge of honor. “These guys thrive on the pressure,” Frost says.

The incident underscores Synn’s main challenge. Big corporations don’t seek out high-wire danger. And they don’t regularly hire companies with a “staff” that works mainly nights and weekends and puts a premium on



BEHIND THE SCENES OF SYNN LABS' PRODUCTION OF OK GO'S "THIS TOO SHALL PASS"

The dazzling Rube Goldberg machine at the heart of the band's video was Synn Labs' first creation. It took six months and more than 100 trips to Home Depot. The team learned to put the smallest, most unreliable stuff early in the sequence, because when it failed, it could be reset more quickly. "Our enemy was physics," says Synn president Adam Sadowsky. Synn's crew couldn't believe all 89 components worked even after the video debuted. "For the first six weeks, I was nervous it'd fail."

having fun. "I couldn't tell who was doing what," says Michael Blum of Riverstreet Productions, which hired Synn to create a teaser ad for the Disney XD channel. "They seemed to have a shared brain."

Sadowsky is trying to set up a pipeline of projects. One source: a new deal with award-winning production house Motion Theory (which did Katy Perry's "California Gurls" video). He's also adding a jigger of discipline, setting up weekly meetings (ugh) where the core group decides which gigs to pursue. Sadowsky takes the lead on assigning who works on which projects, and he's developing a workflow, budgeting on a per-second basis for RGMs, and reminding people to log their hours so they can get paid. (Gradman: "Yeah, I don't do that.")

Sadowsky is trying to balance that process with the kind of serendipity that leads roboticist Knight to say, "As far as job satisfaction, we're off the charts." Last October, for example, David Paris, a Miami caterer visiting L.A. on vacation, heard Synn encouraged volunteers, so he simply showed up to help. Paris played such a big role on the Google machine that Synn not only paid him but also invited him to join the team. Now he's moving to L.A. "We want this to get big enough so guys can quit their jobs," Sadowsky says.

Until a few months ago, the group's "office" was still Barbara's bar, and it had to build the DNA Sequencer in one member's backyard. Now Synn occupies an airy warehouse in a former paint factory in an L.A. industrial area. As much as anything, the move, says the

Synn team, makes this feel like a company rather than a hobby.

And yet Synn's nerd core remains untamed. On a weeknight in mid-October, a dozen members of the group stand around sipping "safety juice" (Tecate beer), assessing their chances in chess boxing (yes, a real sport), and reviewing their progress on the Google machine. "We've shot flame balls in the air, trained hamsters, played with Slinkys, and built rockets," Campbell says. "That's a week at the office."

The fireballs, it should be noted, were strictly for their amusement. Before everyone resumes building, they insist that Dan Busby, one of Synn's founders, demonstrate his contribution again. With a flip of a switch, Busby, a physicist by training and an electric-vehicle engineer by day, summons a dazzling white ribbon of electricity that dances between 5-foot-tall metal rods angled like a TV antenna, perfectly evoking a mad scientist's lab, before flipping a circuit breaker.

"Awesome," Bushnell marvels.

"Do it again!" someone else says.

High-voltage debauchery, just as Synn's tagline promises. Who wouldn't want some of that juju? ☘

For an exclusive tour of Synn Labs' new Rube Goldberg machine for Google's online global science fair, go to fastcompany.com/synn.

salter@fastcompany.com

Sara Ross Samko (wooden track, fire, Legos); Edwin Roses (all others)