

# SURVIVAL RESEARCH LABS

BY ANGE HEULE

Survival Research Labs (SRL) has built its reputation on providing “the most dangerous shows on earth”—it is an art collective that specializes in staging performances, starring enormous robots that beat the crap out of each other. You may think you’ve seen robot wars on television, but there’s a crucial difference: These exhibitions are explicitly designed not only to entertain hundreds of paying viewers, but also to threaten their lives.

Featuring deadly inventions ranging from flame-throwers to sound cannons to humanoid robot ‘soldiers,’ SRL’s performances are literally designed to endanger large groups of people, while staying just controlled enough not to harm anyone. This is a particularly tenuous line on which to balance, and it has made the group few friends in the police and fire departments of the cities where SRL performs worldwide. In 1992 the Austrian Ministry of Defense had difficulty convincing concerned callers around Graz that they were simply overhearing an art performance and not, in fact, being bombed by Serbs.

No one’s been killed at an SRL show—yet—but quite a few have found themselves precariously close to such an eventuality. It’s precisely this teetering on the edge of destruction and pandemonium that’s made SRL so influential in the increasingly visible sector of the design community, where engineering, art, and pyromania converge. (Burning Man, anyone?) Karen Marcelo, who has volunteered with SRL for more than 10 years, explains how to engender a visceral feeling of danger in an audience without sending anyone straight from the bleachers to the morgue.

photo by Josh Kirschenbaum



# CIRQUE DU SRL

A peek into the artistry of Survival Research Labs:

First of all, the audience needs to be as near as possible to the action, which nearly always involves blasts of fire. “[We] turned down a show where it had to have no fire and [the audience had to] be 300 feet away. You might as well watch it on TV if you’re going to be 300 feet away. [It should] give the audience that visceral feel of danger.” One begins to see why the group has trouble getting permits for performances in its hometown in San Francisco

“[The powers-that-be] won’t approve SRL shows, but they’ll approve other people doing even more dangerous things,” Marcelo scoffs. “The difference is, the other people will say, ‘Oh, we have this big fire cannon, but we’re just going to aim it upwards.’ But maybe with SRL, we’ll aim it just a little bit above the audience’s heads, so you can feel it.” And that’s safe...how? SRL ensures safety primarily through extensive machine testing and a heavy reliance on the expertise of their volunteers. “There are limit switches on the machines, so they don’t fire beyond a certain range. There are barriers,” says Marcelo. But most importantly, she notes, “We have people who know what they’re doing.”

But fire is only one of the sensory assaults that audiences endure. A typical show is “scary even without the fire, because it’s loud, it’s big, and it’s coming at you. There are projectiles. Some of the machines resonate at low frequency, so when you stand near them, you feel like your internal organs are getting massaged. It actually feels nice, in a way.” Marcelo wears the knowing smile of one who has experienced a sensation most people couldn’t even imagine.

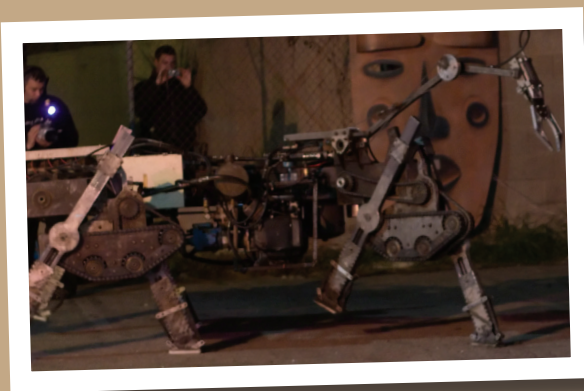
“We also make goo, and spew this weird stuff at the audience. In one show, we had drums of water with airbags inside. When



Mark Pauline and Karen Marcelo looks on as Mark’s son Jake controls the V1 flame jet. *photo: Karen Marcelo*



Detail of the inch-worm bot. *photo: Jake Appelbaum*



The walker-bot lunges its way across the asphalt stage. *photo: Dexter Allen*



A canine carcass gives a creepy aesthetic to one of the SRL props. *photo: Eddie Codel*



In the January performance of “The Fish Boy’s Dream” a giant dino head is set aflame. *photos: Dexter Allen*





the right moment comes, you activate the airbag and it makes a column of water rise up and splatter everyone. SRL engages all five senses.” Another important component of the fear factor, as well as the show’s ambiance, is the scale and gruesomeness or scariness of props—which might be cow carcasses or flame throwers. Props, incidentally, are only distinguished from machines according to whether or not they are intended to survive a show.

SRL volunteers include professional fabricators, model makers and animatronics people from local companies like Industrial Light and Magic, so the expendable props

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are often very impressive. “These props are robots in their own right: They can move, they spew fire, they’re big. But those are the targets,” explains Marcelo. “All these machine operators have the permission to just wreck the hell out of those things.

“Mainly, especially if you have a show that’s out of state, you don’t want to ship that back, so you want to burn it all. It’s definitely like a war zone afterwards.”

If the props are impressive, the starring machines are spectacular in their post-apocalyptic ferocity. Most are the brainchildren of founder Mark Pauline, whose designs flaunt their gears, their wiring, and their ‘pre-owned’ provenance. The overall impression is of a Frankensteinian menagerie stripped down to a jet-fueled, muscle, and metal skeleton.

One of Pauline’s most popular creations,

a nightmarish six-legged behemoth called the Running Machine, was four years in the making. Half giant insect and half junkyard monster, it exudes a terrifying grace as it stalks past both its mechanical brethren and their puny human operators. “Each machine has so much detail,” says Marcelo. “On the Running Machine, if you look at the feet, it’s got little rubber...tendons. If most people build a robot, it has rigid feet, so if the terrain is uneven, it’s going to slip and fall. But with this, the feet can flex. You can’t see that in the show. Maybe one day when Mark doesn’t do shows anymore and these things are in a museum, people can see the detail.”

But for now, the only place to see the machines is in a performance, where this ensemble cast of mechanical characters engages in a complex choreography carefully orchestrated to approach, but not to succumb to, chaos. Amid the cacophony, acrid smoke, and perilously close flames of a performance, a question lurks at the back of everyone’s mind: How much control do these operators actually have? Are things supposed to go like this?

The answer isn’t particularly reassuring. “There’s a general script, but it’s ad-lib most of the time,” says Marcelo. “The machine breaks, or there’s something blocking your way and you don’t want your machine to die, so maybe instead of following the script, you play it safe—or you might say, ‘Ah, I don’t care!’ and just go for it.”

Of course, sometimes it isn’t so simple. Marcelo recalls one occasion when she

was operating the Running Machine in a show, and it strode right out of her radio-control range, walked over a barrier, and headed for the audience. “Good thing it tripped on the barrier and fell before it got to the people,” she recalls. Aren’t such close calls causes for concern? “There’s always a safety plan, and crew members around the perimeter,” contents Marcelo. “SRL is also fully insured.”

Which leads to the question: If the audience gets so much out of being assailed by snot cannons and blinded by smoke, but fabricators really spend the most time on the minutiae of the machines, for whom are the shows really conceived? Mark Pauline once said, “Our shows aren’t for humans, they’re for machines.” But this only hints at the real answer: SRL’s shows aren’t done for the audience—they’re for the creators.

The real danger conveyed by SRL may be how dangerous it is not to give talented people an outlet for their creativity. Observers often wonder why so much engineering genius doesn’t get applied to something more beneficial—after all, people who can make a self-propelled fire-breathing monster from scrap could probably use their spare time to design life-saving-appropriate technologies for the developing world—rather than just blow things up. But SRL’s creators seem to feel that using their skills to play with fire is a more exciting challenge.

“We have a lot of really smart people. We have everything from academics to engineers to artists—and they’re all really creative, and they can solve these problems in really interesting ways and break records in the process,” Marcelo explains. “They’ll do something innovative.” 



photo by Josh Kirschenbaum