# Robotany
## *Atlanta, Seattle, and Zurich*

FOUNDED
2005

MISSION
Safety third

DISCIPLINE
Robotics

MEMBERS
Daniel Bauen,
Jill Coffin,
John Taylor

COLLECTIVE HERO
Ash, who saved the world
in the film *Army
of Darkness*

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Robotany started as a daydream. Jill Coffin, 32, a doctoral candidate at Georgia Tech, was experimenting with interactive textile design at the Electronics Laboratory in Zurich, Switzerland, when she had an idea for a Burning Man project: a lone tree that would rise from the Black Rock Desert. "The tree would be familiar, yet strange, because the alkaline sand can't support life," she says. "You could converse with it as a representative of another world."

The image was still with Coffin when she received a call for proposals from ISEA, the electronic arts festival, so she recruited old friends John Taylor, an architecture student, and Daniel Bauen, a mechanical engineer, to bring it to life. Under the mantle of Robotany they developed Breeze, a parasitic robot threaded through the branches of a live tree; the presence of spectators causes the branches to sway, as if rustled by a gentle breeze.

Taylor programmed the device's brain remotely from Seattle, while Coffin and Bauen designed the physical electronics in Atlanta; the trio wasn't actually in one place until Breeze's debut at the Belluard Festival, an arts showcase in Fribourg, Switzerland. The robot's eye is a video camera with a 360-degree lens mounted on the ceiling; ultrasonic sensors detect movement when the camera's vision is obstructed. A Mac Mini hidden in the tree's planter crunches motion data and then relays impulses to delicate springs in the branches. The key ingredient is nitinol, a space-age shape-changing alloy that allowed the group to manipulate the tree without motors.

Robotany has since turned its sights to a next-generation Breeze tucked into a copse of ordinary trees or incorporated into a larger kinetic garden—Coffin hopes it might eventually "go feral"—while also researching other ways to make plants move responsively. Robotany, as the name suggests, is concerned above all with how natural systems might relate to computational ones. "Electronics have always been 'hard' and we've always made them out of hard things," Coffin explains. "But why do they have to be in little black boxes? We hope to break materials down to their essential elements and incorporate them into our world."

*www.danielbauen.com/robotany* — JESSE ASHLOCK