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HOW 2.0

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EXTERMINATE!

Jim Rossiter hacked a six-channel R/C remote to toggle the Dalek's lights, swivel its head, and move its eye and arms up and down.

YOU BUILT WHAT?!

Evil Alien Cyborg

The ultimate antihero from a sci-fi TV series

Despite his devotion to Daleks—those cruel, armor-clad extraterrestrials from the TV show *Doctor Who*, now in its 50th year—Jim Rossiter has no interest in annihilating other civilizations. The 57-year-old Australian just likes how the aliens look. After decades of building radio-controlled vehicles, Rossiter made his own eerily accurate Dalek, right down its screeching battle cry: “Exterminate!”

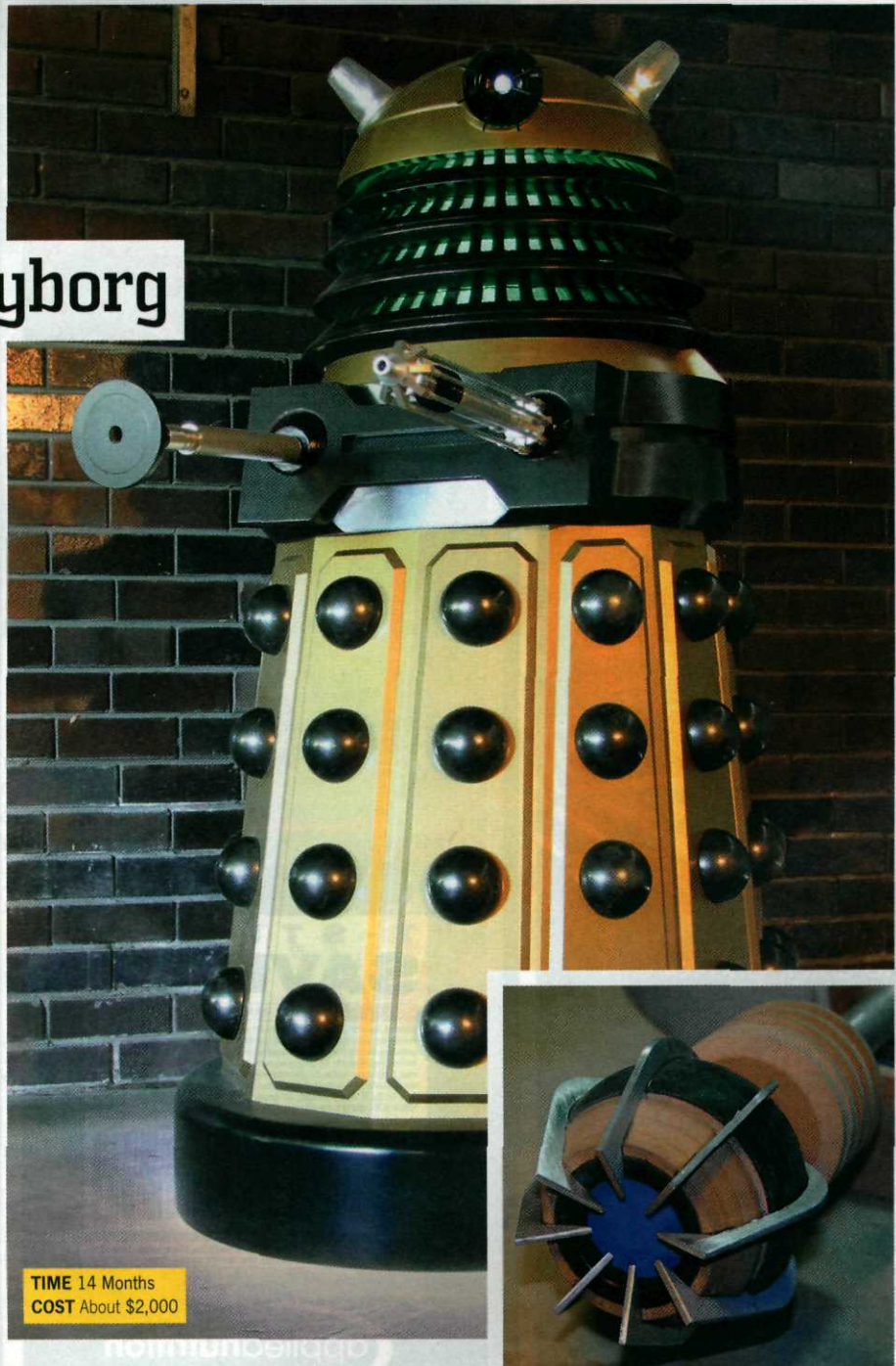
A typical Dalek resembles a giant saltshaker outfitted with a ray gun, a menacing eye on a long stalk, and a third appendage shaped like a sink plunger (which, on the show, can suck its foes to death). Beneath the exoskeletal armor lives a tentacled mutant soldier whose mission is to destroy all other life.

Still, Daleks have an unusual B-movie charm that inspires fan adoration. Rossiter, a machinist by trade, found himself part of a global community of passionate Dalek builders who share plans, tips, and tricks,

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STORY BY GREGORY MONE

PHOTOGRAPHS BY JIM ROSSITER



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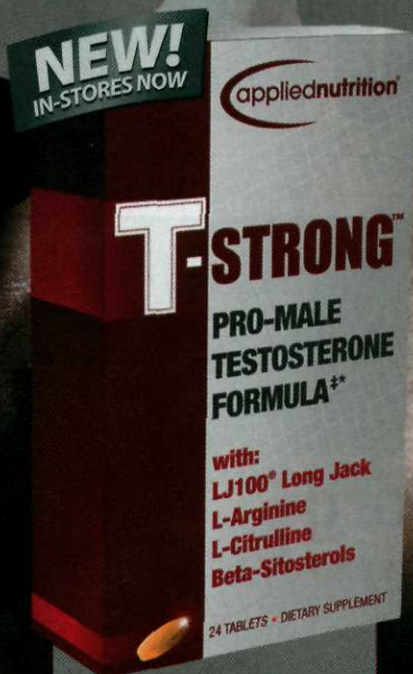
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including advice about 3-D-printing replicas of rare 1960s ray guns.

Rossiter began with a wood and fiberboard frame. What initially resembled a weird piece of furniture soon looked threatening, as Rossiter lathed several pieces of aluminum into the Dalek's ray gun. He set the barrel of the gun in a spherical wooden bedpost, and later fit the bedpost inside the body so it could rotate like an arm in a shoulder socket.

Next, Rossiter spent months sawing, sanding, and fiberglassing the Dalek's body and dome-shaped head. To make the eyestalk move up and down, he first installed a windshield-wiper motor. Once he switched it on, though, it wouldn't stop. "The motor kept trying to move the arm [on its own]," he says. He eventually opted for a simpler servomotor, and he used another servo—linked to a wheel from an old remote-control car—to rotate the head from the inside.

Other fans built Daleks with room for a human driver, but Rossiter had a different plan. "I wanted to see it moving rather than see from inside," he says. So he wired every part for remote control, and set the body on top of a concealed baseplate equipped with two caster wheels and a pair of fat mobility-scooter tires. Each tire moves on an independent motor, allowing Rossiter to drive the Dalek like a tank.

Finally, he transferred sound bites of the Dalek's bleating voice to an old MP3 player, pulled that apart, and wired it to a custom amp and a set of speakers in the body. He can activate the voice from afar, but he's working on a remote microphone and voice-modulation system to twist his words into Dalek-speak in real time.

Rossiter's monstrosity has already terrorized nieces and nephews, but in October he plans to invade an Australian science-fiction convention called Armageddon. The challenge will be getting the alien there; it doesn't fit through his shop door. "Daleks have their own spaceships," Rossiter says. "I only have a little hatchback." 