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GADGET OF THE MONTH

YEEEEHAW



THE FUTURE NOW

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◀ **ALL-WHEEL JIVE**

Watch an exclusive video of the Christini all-wheel dirt bike in the Red Bull Last Man Standing endurance race at popsci.com/christini.

MORE POWER!

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THE POWER OF TWO

A new retrofit kit yields the first motorcycle driven by both wheels, for twice the dirt-churning traction

STUCK ON THE SLOPE of a sloppy hill, his rear wheel spinning in the mud, engineering student Steve Christini realized that he was staring at an untapped source of traction: the front wheel. Six patents and millions of dollars of venture capital later, he's created a kit that turns a standard Honda dirt bike into the first race-ready two-wheel-drive motorcycle. Previous attempts at an all-wheel-drive bike were nearly unsteerable because accelerating the front wheel tends to yank it to one side. Christini's kit offsets that lateral torque by using two counter-rotating clutches—one on each side of the fork—in the front drivetrain. The kit further mitigates the torque by delivering only a controlled amount of power to the front, and only when the rear wheel spins. The kit is already a hit with pros. "Fifty percent of dirt biking is just trying to get traction," says five-time world champion Chris Smith. "Once the front wheel is powered, you can go in whole new directions." —KYLE STOCK



CHRISTINI AWD KIT

WEIGHT: 15 pounds
PRICE: \$6,800 (bike not included)
AVAILABLE FOR: Honda CRF250 and CRF450
INFO: christini.com

▼ **EXTRA DRIVE** The second chain turns a driveshaft hidden in the bike's headtube to power the front wheel.

