

1 Chemical bike lock emits toxic gas

2 Have you ever had a bicycle stolen? Well, a new company thinks it has a funky way to combat the crime - by
3 **creating** a bike lock which spews foul-smelling gas.

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5 The "Skunklock" is a U-shaped steel bicycle lock with a pressurised, stinking gas inside. The gas escapes in a cloud if
6 someone attempts to cut the lock. The company **claims** its "noxious **chemical**" is so **disgusting** it "induces vomit in
7 the **majority** of cases." Even better, it claims, the gas **causes** "shortness of breathing" and impaired eyesight.

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9 Co-inventors, Yves Perrenoud and Daniel Idzkowski created the U-shaped lock of carbon and steel with a hollow
10 chamber to hold one of three pressurized gases of their own concoction, including one called "formula D_1". When
11 someone cuts about 30% of the way into the lock, Idzkowski said, the gas erupts through the gash.

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13 The company's crowdfunding campaign video **contains** a colourful reconstruction of its **intended** effect. The idea -
14 which tries to make stealing a bike as unpleasant as possible - is raising money for production on crowdfunding site
15 Indiegogo. "Our formula **irreversibly** ruins the clothes worn by the thief or any of the **protection** they may be
16 wearing," the company claims on its crowdfunding page.

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18 The inventors have not yet tested the **device** on an actual **potential** thief, but have tested it on themselves and
19 **volunteers** at distances of two feet (60cm), five feet, 10ft, and 20ft. "At two feet it was pretty bad. It was **absolutely**
20 vomit inducing in 99% of people. At five feet it's very **noticeable** and the **initial** reaction is to move away from it. At
21 10ft it's **definitely detectable** and very **unpleasant**."

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23 Since stolen bikes sell for a fraction of their true cost, replacing clothing or **equipment** could make the theft more
24 trouble than it's worth. Skunklock says it has tested its **foul** gas, and it even **penetrates** high-end gas masks - though
25 most thieves are **unlikely** to go to such lengths.

26 But the company said that the compressed gas is perfectly safe - and can only be released "by trying to cut through it
27 with an angle grinder".

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29 If all else fails, the Skunklock is still a solid piece of steel. If the chemical countermeasure is **released**, it is a one-
30 time only use, and the lock - which costs over \$100 - will have to be **replaced**. But the hope is that the unpleasant
31 experience will cause them to **abandon** the attempted theft, leaving the bicycle behind.

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33 In San Francisco, home of Skunklock, bike theft is **common** - with an **estimated** 4,085 bikes stolen in 2014, or more
34 than 11 each day. In the same year in London, more than 17,800 were reported stolen - but campaigners claim most
35 thefts go unreported, and the real number is closer to 100,000. Even so, the **average** user might have some concerns
36 about carrying a chemical weapon countermeasure on their morning commute.

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38 But the company claims it's ahead of the legal **issues**, having already **reviewed** United States laws on the product.
39 Idzkowski said their chemical had passed compliance tests and was legal, and that its **variants** were designed to be
40 compliant according to the **varying** rules of 50 states, **major** cities and EU nations. Some states have limitations on
41 shipping chemical **compounds** like pepper spray, so Skunklock has an alternative formula ready for some customers.

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43 They're also already looking at selling it in countries with high rates of bike theft - including the United Kingdom, the
44 Netherlands, Germany, France, Denmark, Finland, Belgium, Sweden, and Japan. In a marketplace where stronger and
45 harder locks seem to have made little **impact** on the number of crimes, the **unique** idea is getting **attention** - the
46 crowdfunding campaign on Indiegogo has raised over \$8,000 of its \$20,000 **target** in its first day.

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48 Adapted from [the BBC](#) and [the Guardian](#)