



## **‘Smart gun’ tech isn't new. Nor are the flaws and political obstacles**

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"Smart gun" technology has been around for decades. So, where is it? The elusive nature of smart guns is due in part to technology, part to politics.

Eighteen years ago, President Bill Clinton's press office announced a historic agreement between the federal government and Springfield firearms manufacturer Smith & Wesson to develop smart gun technology.

Among the terms of the agreement was a requirement that "2 percent of annual firearms revenues will be dedicated to the development of authorized user technology that can limit a gun's use to its proper owner." Additionally, all new models of firearms had to include "authorized user technology" within three years.

While Smith & Wesson made the deal with the Clinton administration in order to get out of threatened lawsuits, others in the gun industry saw the agreement as "an act of craven self-interest" and dubbed it "the Smith & Wesson sellout." The company found itself the target of a boycott, and a little over a year later a startup bought the near-bankrupt company.

The 2000-2001 Smith & Wesson debacle wasn't the last time a company tried to bring smart guns to the U.S. market and failed because of a conflict between government and industry.

In 2002, New Jersey passed the Childproof Handgun Law. It required that all handguns in the state be smart guns within a couple of years of any smart gun becoming commercially available anywhere in the country.

In an ironic twist, the law largely deterred major gun manufacturers from producing smart guns. Companies didn't want to be the ones to trigger the law that would effectively ban the sale of all other handguns in New Jersey, David Kopel, a policy analyst at the Cato Institute, told National Public Radio.

The term "smart gun" or "personalized gun" refers to a weapon with features that prohibits an unauthorized user from firing it. Methods have included a fingerprint sensor and radio frequencies.

The first production-ready personalized gun was created in 1998. The M-2000 shotgun by iGun Technology required a user to wear a radio frequency identity-tagged ring. The gun could read the RFID tag in the ring to determine if the user had permission to fire. It's like adding two-factor authorization to a gun: not only do you have to mechanically fire the gun, you have to be wearing the ring with the right code.

Armatix produced a model similar to the iGun M-2000, but it pairs with a wristwatch instead of a ring.

Kodiak's "Intelligun" and Massachusetts-based Biofire Technologies developed "biometric" smart guns, which allow operation only when an authorized user has been recognized by a fingerprint sensor on the side of the gun.

These are just a few of the US. companies that work on smart tech in the firearms industry. Other technologies being developed include smart safes and gun trackers that alert a gun owner when their firearm is moved.

Still, the smart gun keeps evading the commercial market.

Some laud the smart gun as a sensible way to reduce injuries and death by firearms while still allowing private ownership of handguns. Others see the technology as a threat to the right to protect oneself.

John Rosenthal, founder of gun control advocacy group Stop Handgun Violence, called the smart gun one of "the two silver bullets in gun violence prevention." He also supports more extensive background checks and a ban on assault weapons and high-capacity magazines. Because smart guns can't be used by an unauthorized user, trading regular guns for smart guns can prevent the vast majority of gun violence that is often perpetrated with stolen firearms, according to Rosenthal.

A gun owner himself, Rosenthal would like to see smart guns in the market.

"I personally would love to own a smart gun that only I could fire, or that I could designate my spouse to fire but not anyone else," he said.

But not everyone is so sure about smart guns.

"It's technology that can fail, and if it's something you are relying on to protect your life you want as few failure points as you can get," said Jim Wallace, executive director of the Gun Owners Action League.

Reliability is a key feature Wallace values in a gun, and he doesn't think the current technology can deliver that. He pointed out that the biometric lock on his phone doesn't work consistently, and he worries that a similar lock on a gun would fail to recognize his fingerprint in a time of need.

Indeed, there have been reports about misbehaving smart guns. A 2017 Wired article reported that the Armatix iP1 could be easily hacked with handful of magnets.

Wallace said people who want smart guns should be able to buy them, but that there should be no mandate that guns have "smart" features, although he's skeptical that there exists a strong market for smart guns.

"I haven't had a single person over the years that's come to me that wants it," he said.

But Wallace isn't completely dismissing the idea of smart guns. "Who knows what five or 10 years can bring in any kind of technology ... never say never," he said.