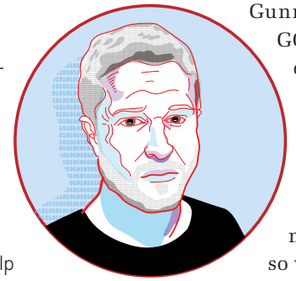
STAFF REPORT

DIGITAL REVOLUTION

THANKS TO THE EFFORTS OF DEFENSE DISTRIBUTED, HOME GUN-BUILDING IS HERE TO STAY.

FEW AMERICANS ARE AS POLARIZING AS DEFENSE Distributed founder Cody Wilson. The company calls themselves "the first private defense contractor in service of the general public" and consists of the following entities:

- DEFCAD (defcad.com), a file-sharing platform for digital gunsmiths.
- Ghost Gunner (ghostgunner.net), a third-generation, programmable desktop CNC with a gunsmithing design emphasis and related software.
- Legio (ddlegio.com), a technical fraternity and legal support organization.
- Ghost Guns (ghostguns.com), which sells kits, parts, and tools to help consumers start and finish their DIY and 3D-printed firearms.



What makes Wilson so controversial? By merging CNC machinery with digital files, Wilson has become the Henry Ford of DIY gun building, enabling the masses to produce untraceable firearms. As the leader of this revolution, it's no surprise that Wilson has become public enemy No. 1 to those who espouse the dangers of civilian firearm ownership.

By age 31, "Wired" included him on the "Most Dangerous People on the Internet This Decade" list, joining ruthless dictators like Xi Jinping and Vladimir Putin. But to Americans who cherish God-given freedoms and loathe government intrusion, Wilson is less John Dillinger and more John Adams — a modern-day patriot who has almost single-handedly guaranteed future generations the means to manufacture firearms.

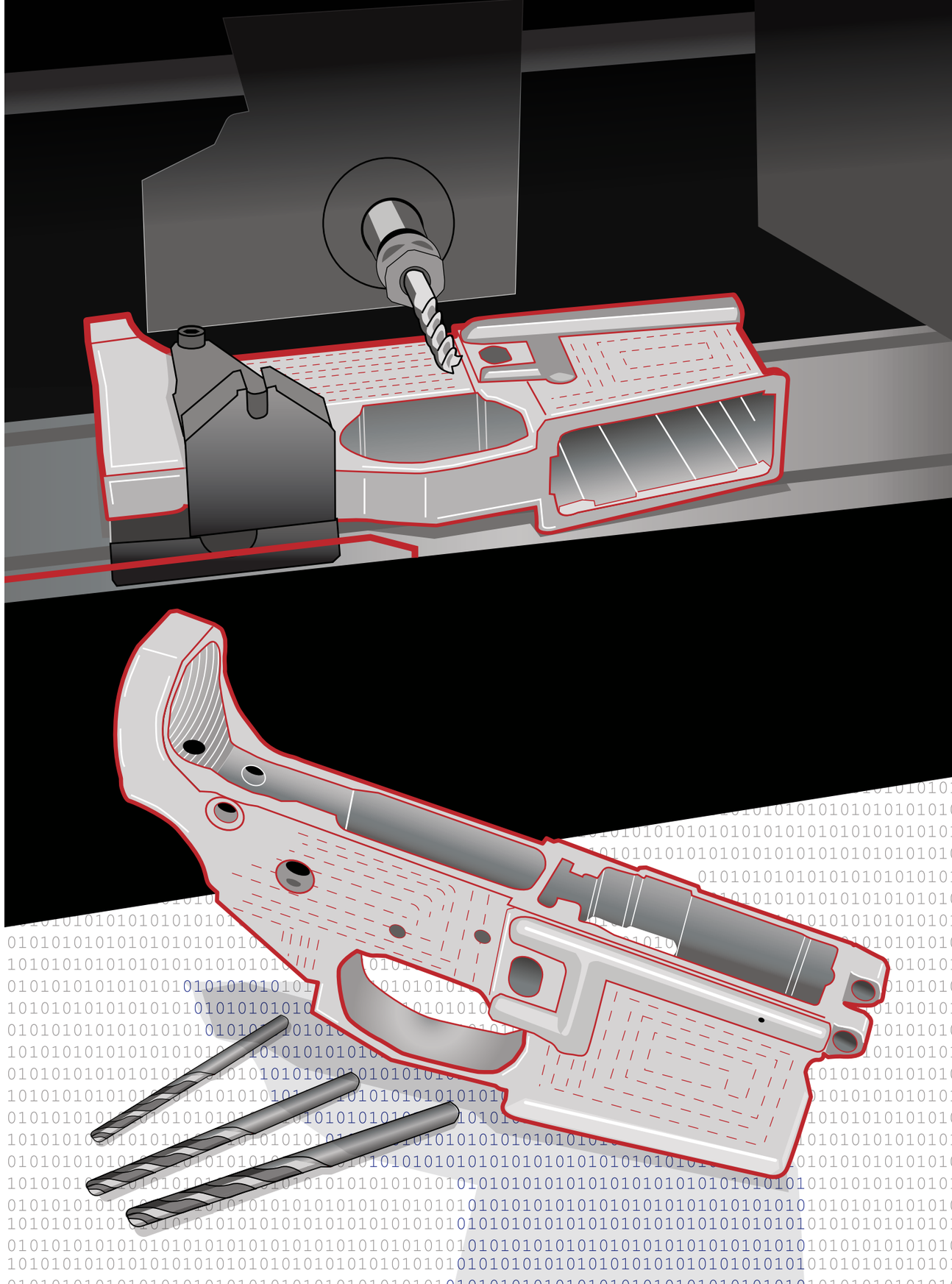
Recently, we spoke with Wilson about his Ghost Gunner 3 (GG3), the culture of DIY gun building, the future of the Second Amendment, and how to combat the dark forces working feverishly to strip away American freedoms.

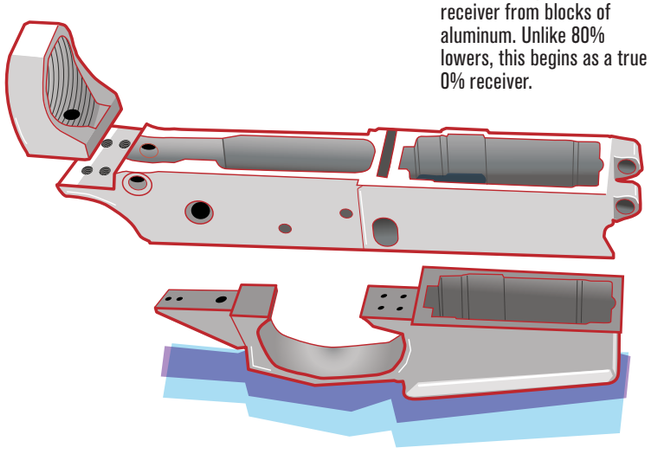
AR: When did you develop the first Ghost Gunner? The current version — the GG3-S — has greatly expanded the capabilities of the original. What is possible with this machine?

Cody Wilson: Ghost Gunner [GG1] machines are over 10 years old. GG1 was capable of finishing aluminum AR-15 80 percent receivers, so we went to market with a "Wired" story and began getting squeezed by payment companies and banks. We've repeated some version of this routine every year since.

GG3-S machines are named such because of their third-generation motor and motion control electronics, in addition to their firmware. The "S" is for steel. GG3 machines are the first of their kind to allow home gunsmiths to do slide work and finish steel receivers like the AK-47.

Of course, the machine is general-purpose and completely programmable. The software and hardware are open source, and we've seen a large community of people take advantage of this to do much more interesting work than what we directly promote.





The AR-00 kit allows you to mill a complete AR-15 receiver from blocks of aluminum. Unlike 80% lowers, this begins as a true 0% receiver.

AR: What are the most popular DIY firearms? AR-15, Polymer80, AK, etc.

CW: By one definition of DIY, the AR-15 is likely the most popular gun for personal projects. The rifle's modularity and huge secondary market enable endless remixing and customization. Unfinished AR 80 percent receivers were a large part of this activity. By another definition, the Polymer80 kit might have been the most popular "ghost gun" build of all time. P80 was able to package something affordable, easy, and truly effective. It was such a winning combination that half the states in the country sued them, and the Biden Administration had to invent new ATF regulations in 2021 to try to get a handle on the problem.

AR: On the Federal level, do you foresee any obstacles to home-built firearms? How about at the state level?

CW: Sure. As I mentioned, the Biden ATF tried to use the APA to reinterpret the GCA definition of a "firearm" and the "frame or receiver" of the same. The rule (ATF202R-05F) was an attempt to say any combination of parts, including unfinished components, could now meet the definition of a firearm or frame/receiver, depending upon how the parts were sold or marketed. Since 2022, a coalition of gun groups and parts sellers, including Defense Distributed, have successfully sued the ATF here.

At the state level, there are many legal attacks on DIY guns. California took the slow approach of first requiring permission and registration and then banning them entirely. By 2018, New Jersey had decided DIY guns were the worst possible kinds of guns and banned not just their making but the distribution of their related code or files. Many blue states have now defined "ghost gun," made the possession or manufacture of unserialized guns some type of felony, and even prohibit modes of manufacture, explicitly restricting the use of 3D printers or CNCs.

AR: How have the Ghost Gunners changed the 80 percent lower world?

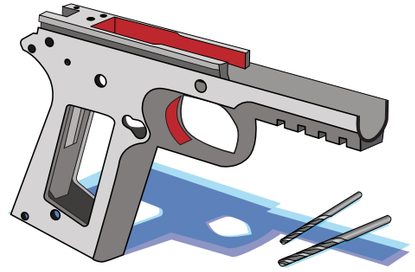
CW: Ghost Gunners became one of the most popular ways to complete 80 percent receivers after the ATF published its rule "2015-1," which effectively required individuals to own the equipment they used to make or finish firearm receivers. This rule ended the old method of going to someone's machine shop and just pressing "go" on their traditional CNC. It also ended the California-style build parties we used to hear about. These days, 80 percent components are usually designed with the GG in mind.

AR: With 3D printing accelerating at a frenzied pace, do you see technology like additive manufacturing ultimately overtaking CNC milling as the primary means of individuals building firearms?

CW: It's hard to get great customer research on this, but the CNC gun community is advantaged by being larger, older, and wealthier than the more doctrinaire subculture of "primarily" 3D-printed guns. That said, printers like the Bambu X1 are finding their way into every workshop, and printing will be an almost required part of any gun builder's prototyping or manufacturing process.

AR: Where does AI come in? Certainly, it will have a big impact on the 2A landscape.

CW: From what I can see so far, LLMs [Large Language Models] aren't a great help to the home gunsmith. The large models we've all become familiar with — ChatGPT, Llama3, etc. — have



Unlike the first generation Ghost Gunner, which was only for aluminum lowers, the newest model can mill steel-framed 1911s.

instruction to not assist us. Whatever it is these models know, we're not going to find out about it in the name of "AI safety" or whatever.

But the nature of LLMs as a technology may also limit their application in gunsmithing. We need AI co-pilots capable of accurate retrieval, math, materials science, ballistics, and machine code generation. Today's AI isn't very helpful here, though we're experimenting with some of these techniques at GatGPT.com.

However, there are industrial AI applications I'm excited about. A company named CloudNC recently closed a round with Autodesk, and their plugin for Fusion360 can read part geometry and produce plausible CNC g-code, depending upon the machine profile and tool library.

AR: How many entities have tried to take you down? Clearly, you and DD are not popular with a good chunk of the country.

CW: I guess we've been parties to 15 or so federal lawsuits now. Usually, we're on defense. Being a small company through most of this was an advantage, though I can't pretend we'd have gotten through it without the involvement of organizations like the Second Amendment Foundation or the Firearms Policy Coalition.

Regarding our popularity, that seems to be a function of the vast system of information control the government and tech platforms have engineered since at least 2012. After 2017 and 2018, it became difficult to even learn about our work outside of gun circles.

After a decade, I still don't think a good chunk of the country knows about our work, though I think most people have now heard of 3D-printed guns.

AR: This is a scary time in our country, with the government, Big Tech, and most of the media actively colluding to vilify half of America. What is your advice to gun owners for not only protecting our freedoms but also expanding them?

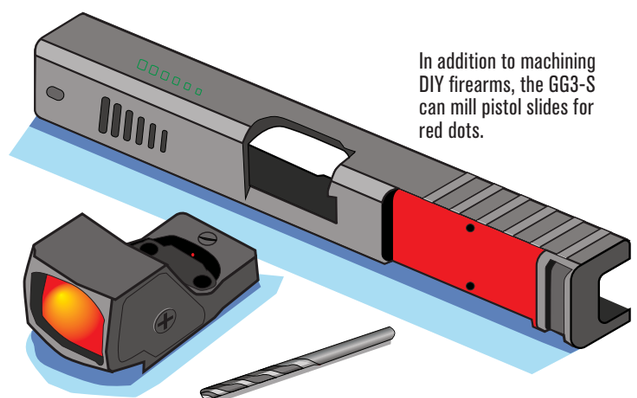
CW: Ah, this question means you're already where I was going with my last answer.

Though we've had a decent Supreme Court for Second Amendment questions since at least 2008 — just look to the technical discussion in the recent Cargill decision — faith in this institution is a trap. The decision in Rahimi should be a wake-up call for anyone still trying to engage with the Heller or Bruen decisions in good faith. The Court is a political body like any other, and its mission is one of self-preservation and management of its popular legitimacy.

Advances in the private right to bear arms or even military populism are, at this time, censored and obscured by our institutions and an official political and media program of technological amnesia.

The history of America is in many ways a history of small arms production. The foundations of the so-called American system built in the Connecticut Valley and exported to Enfield were laid by private engineers and industrialists developing new methods of production of the firearm. The mobilization miracle of the Second World War was the product of a machine tool industry and a national technological life that is now directly in dispute.

Though the American military industrial complex is clearly the most powerful in human history, the skills and social organization upon which this complex depends are now too threatening for the professional political coalitions that run more than half the country. My advice for gun owners is to cut the Boomer civic ideals and to realize that your skills, knowledge, and material culture are essentially, if not yet literally, criminal. This will help us act in the years ahead.



In addition to machining DIY firearms, the GG3-S can mill pistol slides for red dots.