

# The Super-Secure Stealth Key

By Chip Hartman



*3-D printing is helping to meet all kinds of technological challenges, from complex molecular models for cancer research to architectural models of skyscrapers in earthquake zones. Unfortunately, this technology is now being used by enterprising criminals to generate perfect copies of any house key ... all with nothing more than a cell phone camera.*

## The Problem

If you've ever watched one of those crime reconstruction shows where the video footage includes shots of a car with its license plates exposed, you already know that the footage is edited to include a "blur" over the plate to protect the privacy of the owner. The same applies to videos of certain people or even sensitive signage — anything that must be kept out of the public eye to avoid security or privacy breaches and resulting legal entanglements.

Now there's a new item that needs to be added to the blurred out list: Your house key.

It turns out that anyone with a smart phone can photograph your house key — if you've left it exposed in public view — and, without a great deal of expense or effort, make a perfectly functional copy thanks to the relatively new technology of 3-D printing.

There are even web sites that will perform the 3-D printing service for you (for a fee) and mail you the duplicate key with no questions asked. Scary, right?

## Indianapolis TV Station Exposes the Danger in its Own Offices

**I-Team 8**, an investigative news team at WISH-TV (Indianapolis) decided to dig deeper into this latest techno-criminal twist in order to find out how easy it would be for a burglar to gain access to your home just by snapping a cell phone photo of your keys which you carelessly left out on the table in the shopping mall's food court.

The team checked its home turf first — the newsroom. On several of their co-workers' desks, they found keys left unattended. The next step was awkward but necessary: They selected one desk where a key that unlocked the door to the newsroom was lying in plain view and snapped a photo of it.

Then they found a web site that would 3-D print a duplicate of the key for only \$ 6.00. All that the web site required was a suitable photograph of the key.

Within a week, the team received the 3-D printed duplicate key ... which unlocked the newsroom door on the very first attempt. Needless to say, **I-Team 8** would not reveal the identity of the web site that offered the duplication service.

## I-Team 8 Expands the Experiment

With proof that the product worked in its own surroundings, the crew set out to determine just how often regular folks going about their busy days might leave *their* keys unattended — however briefly — and therefore make themselves vulnerable to this new threat.

They headed to a busy lunch spot known as City Market in downtown Indianapolis. Walking among the tables of hungry diners, they surreptitiously photographed numerous keys lying exposed in front of their owners.

After getting a random sample of photos, **I-Team 8** announced its presence to the crowd and explained to surprised diners what they had just done. Reactions were predictable: One woman felt that her privacy had been invaded; another swore to take much greater precautions the next time she was out in public.

## The Solution: The Stealth Key

Enter **UrbanAlps**, a Swiss security company dedicated to creating next-generation security keys that cannot be copied ... even with advanced 3-D scanning and 3-D printing technologies.

While there is no direct connection between the results of **I-Team 8's** investigation in the US and **Urban Alps** (based in Zurich, Switzerland), the fundamental problem of mechanical key security was finally spiraling toward a credible solution.

“For centuries mechanical keys have relied on external features,” said Alejandro Ojeda, **UrbanAlps** Co-Founder & Managing Director.

“Today, thanks to Additive manufacturing, we place the features inside. Unlike electronic combinations, the **Stealth Key** is the affordable solution to the lost sense of security of key duplication.”

The secret to the **Stealth Key's** success is simple: All of the critical security features are hidden on the inside of the key rather than etched on the outside surface. This effectively renders a metal key unscannable, making it nearly impossible to produce with any other method than **UrbanAlps'** own proprietary Additive Manufacturing (AM) design and fabrication processes.

"It is a purely mechanical solution that is very hard to copy. It uses no magnets and no electronics."

For those interested in purchasing the new **UrbanAlps Stealth Key**, the company expects to develop a security system that's very favorably priced compared with today's existing lock and key combination systems. Sale of the keys could begin as early as 2016.

## Frequently Asked Questions for UrbanAlps

Once the **Stealth Key** was announced, there was a healthy dose of skepticism from early followers of the product; however — as you will see on [the company web site's "FAQs" area](#) — **UrbanAlps** defused the push-back with solid, defensible responses.

## Resources

[Clever explainer video about the problem of key security \(UrbanAlps\)](#)

[The Stealth Key: a key that cannot be copied by the masses \(UrbanAlps\)](#)

[The Unscannable 3D printed Stealth Key | Felix Reinert | Urban Alps | TCT Show](#)