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Nest Protect (second generation) review: A new Nest device to Protect what matters most

Nest Labs leans into its strengths with this follow-up to its famously recalled connected smoke and CO detector.
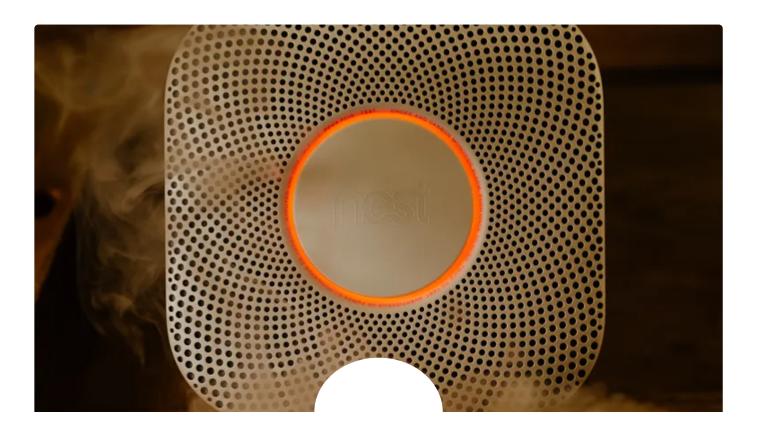
Megan Wollerton
July 27, 2015 5:30 a.m. PT

7 min read

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Editors' note (Sept. 13, 2019): Nest ended the Works with Nest program on Aug. 31.

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THE GOOD

The new Nest Protect has a more refined design than the original model, as well a handy in-app alarm silence feature to go along with its already useful connected features and integration with other Nest products and IFTTT.

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THE BAD

The history section in the app is empty and it doesn't have enough new features to justify an upgrade from the original.

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THE BOTTOM LINE

No other smoke and carbon monoxide detectors available today can match the second-gen Nest Protect in terms of looks and options, making it a great buy for anyone who appreciates design and connected features.

Nest apparently loves a good challenge. Its ability to transform boring, utilitarian household products into smart devices beautiful enough to make a design giant like Yves Behar weep (I imagine) is an incredible feat.

And yet, Nest's original Protect smoke and carbon monoxide (CO) detector had a big problem. Its 'Wave' feature that literally let you turn off alarms with a gesture was deemed dangerously unreliable after it hit retail, leading to a recall.

Now, a second-generation Protect has arrived and it's noticeably sleeker and smarter than its predecessor. With a slimmer profile, a new in-app "silence" button that allows you to turn off smoke and CO alarms remotely (the original Nest Protect doesn't currently support this feature) and integration with the Nest Learning Thermostat , Nest Cam and IFTTT, this $99/£89

detector is the best connected one we've seen yet. If you already have a first-gen Nest Protect, I'd skip this upgrade, but I strongly recommend the Protect 2.0 to first-time connected detector shoppers.

Behold, the second-generation Nest Protect (pictures)

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Pretty, pretty Protect

Many consumers will still happily settle for the $25 puck of white plastic that functions as the traditional smoke detector. Like its predecessor, the second-generation Nest Protect elevates the aesthetic of the standard issue detector, but its balances that appeal with a set of connected features that let you control the Protect remotely via your mobile device or your account on the Nest Web page.

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As before, Nest nails the aesthetic upgrade, thanks to the Protect's white or black finish, square design with rounded edges, and a stainless-steel mesh cover that looks neat and gives smoke and CO a bunch of access points. You might not install it in a place at home where you will often get to admire its looks, but at least when you do, you'll appreciate seeing it.

A ring of colorful LEDs surround the central on-off button, alerting you to the Protect's current status. It goes blue during setup or testing mode, green when everything's fine, white as an optional nightlight that illuminates when you walk underneath it, yellow/orange to warn that there's a potential smoke or CO emergency and red when there's a real smoke or CO event.

Beyond looks

You can use the second-gen Nest Protect even if you don't have Wi-Fi (or temporarily lose your Wi-Fi connection for some reason). Whether or not you have Wi-Fi, the Protect unit will issue a loud warning if it senses increasing smoke or CO levels (specifically, it will flash yellow/orange and say, "Heads up. There's smoke/CO.") And, if there's an emergency, it will flash red and say, "Emergency, smoke/CO detected."

The Protect will also test itself for low batteries or any other concerns regularly, communicate with any other Protects in the house (if one Protect alarm detects smoke, all of the Protects in the house sound) and display a faint white light when you walk underneath it in the dark -- presumably on your way to get a late night snack, a feature it calls Pathlight.

To allow for of all of this functionality, the Protect has built-in sensors to detect electrochemical CO, heat, humidity, occupancy and ambient light, as well as a microphone. Nest also upgraded its smoke sensor with a split-

spectrum sensor that's exclusive to the Protect 2.0. This new sensor claims to be better at detecting both slow- and fast-burning fires, which, unfortunately, wasn't something that we could test directly.

With Wi-Fi, you can do a lot more, including naming your Nest Protect(s) hallway/basement/bedroom, etc., opting out of the Pathlight feature, receiving alerts and auto-updates to software, using the Nest Android or iOS mobile apps and Web app, pairing your Protect with the Nest Learning Thermostat, Nest Cam and select Dropcam models for advanced integrations and even accessing IFTTT for third-party automations with color-changing bulbs like those from Lifx and Philips Hue .

Getting things going

I used an iPhone 6 Plus to set up my Nest Protect. Since I already had the Nest app, I simply opened the app, selected "Add product" and followed the simple steps to start testing out the full functionality of the unit.

Given that the Protect has to be installed near your ceiling, it might take you a little longer than a typical plug-and-play smart-home device. I opted for a battery-powered model so I could test it in different locations; it comes with six Energizer Ultimate Lithium (L91) AA batteries. Installing the hard-wired version yourself (also $99), will also require a basic comfort level with home electrical systems. For the initial setup, it took me about 10 minutes from start to finish. As always, consult a professional if you have any installation questions or concerns.

Setting up the Nest Protect is simple.

Screenshots by Megan Wollerton/CNET

The screenshots above illustrate the basic setup process -- remove the tab from the battery compartment, add your Wi-Fi information, opt in or out of the Pathlight/nightlight feature and you're basically done, aside from a prompt at the end for a quick safety check. That check consists of pressing the center button on the Protect twice to ensure that it's connected to the network and functioning properly.

Navigating the Nest app is pretty straightforward, but it has some quirks. From the main screen you can initiate a safety check whenever you like to ensure that the alarms are working (you can also do this by pressing the center button on the Protect twice, as I mentioned earlier) and, supposedly, review your history. But, although I've tested the Protect over several days,

no history has ever populated in the app. Instead it says, "Welcome to Nest Protect History. Come back tomorrow to see what your Nest Protect has been up to." Hm.

The Nest Protect section of Nest's new iOS app.

Screenshots by Megan Wollerton/CNET

That's all great, but does it work?

The second-generation Nest Protect is certified by Underwriters Laboratories under UL code 217 and follows safety standards outlined by the National Fire Protection Association under NFPA code 72. While we didn't have a safe way to test the Protect's carbon monoxide sensor, we did expose the unit to a fair amount of smoke from both bottled smoke and smoke candles. I also tested it alongside a $50 Kidde smoke and CO detector.

Although it was impossible to control the smoke dissipation perfectly, we conducted several tests and made every effort to expose both the Protect and the Kidde detectors equally -- and the Kidde detector almost always sounded its alarm before the Protect. The Protect starts with a spoken warning before launching into a full-blown alarm, which usually took place around the same time as the Kidde alarm's regular alert, but never before.

The Protect's actual siren-blaring alert always started shortly after the warning. Usually, the Protect's alarm was just a second or two behind the Kidde, but it did take what'd I'd consider to be significantly longer (up to 15 seconds longer) a couple of times. Generally, though, the Protect and the Kidde took about the same amount of time to sound their respective alarms.

I did receive alerts on my phone from the Protect, but they weren't always timely; I consistently heard the alarm several seconds to a few minutes before I ever got a notification on my phone. Occasionally, I even received a number of alerts -- a warning alert, an alarm silenced alert and an alert that the smoke had cleared -- all at once and quite long (up to a few minutes) after the initial warning was actually triggered by the Protect unit, as you can see in the screenshot below. Notification response times will always be subject to network latency and the strength of your various wireless and cellular connections. I didn't see enough unreliability here to feel overly concerned, especially given that the more crucial local alarm works as expected.

Alerts and silencing the Protect.

Screenshots by Megan Wollerton/CNET

The in-app silencing feature worked quite well and is a excellent alternative to blindly stabbing at your detector with a broom, but the Protect will override this feature if it decides that there's too much smoke in the area. I like that personally, but it will limit your ability to silence your Protect from the app. In addition, I tested Nest's claims that the Protect won't sound the

alarm for something like steam coming from a shower. It worked flawlessly, correctly judging the difference between steam and smoke, although so did the Kidde detector.

I also tested an automatic integration between Nest Protect and Nest Cam users. If you happen to have a Nest Cam or a Dropcam and a Protect, the camera will automatically record during a smoke or CO event and shoot you an email with a link to the footage. This feature worked quite well and makes a lot of sense if you want to try to revisit what happened, but it's only useful if your camera is positioned somewhere near the action.
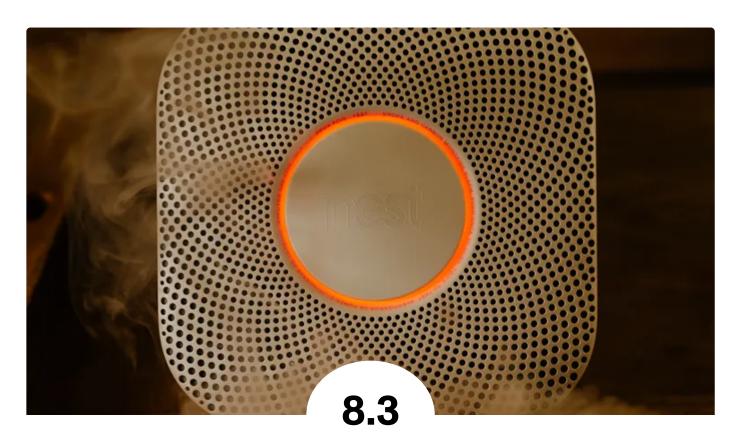
I also tried a few different IFTTT recipes with Lifx and Philips Hue LEDs (to flash red during a smoke event) as well as triggering the free Web and mobile service to call my cell phone whenever it detected smoke. The light bulb integrations weren't responsive enough for short smoke events, typically flashing several minutes after our test smoke dissipated. But I did like the phone call integration, which was prompt and provided a prerecorded audio version of the push alerts.

Integrations with IFTTT and other Nest products worked pretty well.
Screenshots by Megan Wollerton/CNET

Conclusion

The $99/£89 second-generation Nest Protect is a solid smoke and CO detector. It looks great and delivers on the basics -- and then some thanks to its connectedness, especially its silencing feature (the first generation Nest Protect does not currently support in-app silencing). Your home wireless network and your cellular service will always have an impact on the reliability of those smarts. If they're not reliable, you shouldn't invest in those extras here, and generally, this second-gen model doesn't add quite enough to justify upgrading from the original to the 2.0 version today (unless you really want in-app silencing).

And while its in-app history section wasn't working properly, overall my experience with this new Nest Protect was a positive one. You won't find another smoke and CO detector available today that matches the Protect in terms of design and smarts.

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Nest Protect (second generation)

$147 at Amazon

SCORE BREAKDOWN

Features	**9**
Usability	**7**
Design	**9**
Performance	**8**

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