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THE
TAKEOUT

This scary robot nose will tell you if you need to trash those past-their-"best by" date chicken thighs

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Nose inhaling air

Robots may not be able to smell your fear (*yet*), but they can sniff out your funky raw meat. A team of scientists led by Nanyang Technological University, Singapore (NTU Singapore) has invented an "artificial olfactory system" that "mimics the mammalian nose" to assess meat freshness. Yep: it's a fake nose that can help you figure out if you *really* need to toss that four-day-old chicken breast.

A press release from NTU explains that the "e-nose" has two elements: a barcode that changes color after detecting the gases produced by decaying meat, and a barcode reader that uses AI to interpret the barcode. The first bar in the barcode contains a yellow dye that is weakly acidic. When exposed to bioamines, the nitrogen-containing compounds produced by

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decaying meat, the dye reacts and changes to a richer shade of blue. The colors continue to change as the meat decays further.

The e-nose is a very cool resource for home cooks who, like myself, are nauseated by even the slightest suggestion of meat spoilage. NTU explains that it could also help reduce food waste by serving as a more accurate read of meat freshness—presumably even better than a "best by" label. "These barcodes help consumers to save money by ensuring that they do not discard products that are still fit for consumption, which also helps the environment," explained lead author Professor Chen Xiaodong in a press release. And, yeah, there's an app for that: the scientists integrated it into a smartphone app that offers results in 30 seconds.

So, how reliable is this thing? The nose knows: the research team found that the AI algorithm predicted meat freshness 98.5% of the time. I like those odds better than my usual method of warily sniffing meat and trashing it if it looks at me the wrong way. Still, until this so-called NOSE is available in the U.S., I'll be erring on the side of caution.