



Watch Robots Transform A California Hospital

A hospital at the University of California San Francisco Medical Center has a robot filling prescriptions.

The \$15 million system works like this: a doctor writes out an electronic prescription. At the pharmacy, a mechanical arm scoots past dozens of shelves and picks out the medicine. The pills are then sorted and dispensed into little packets. The packets are grouped together into these little rings—one ring for each patient.



Credit: Peter McCollough for NPR

In the old system, a doctor would write out a prescription by hand. A clerk would then have to scan and fax the prescription to a pharmacist by hand. The pharmacist would then have to type in the order into the computer. A pharmacy technician would go out and fill the prescription. The pharmacist would have to then to go back and check the prescription.

The robots are remarkably accurate. The robot has an error rate of close to 0 percent. Out of the 6 million doses it has dispensed, it's only filled one bad prescription (and that

was due to human error). When humans were doing it, the error rate was around 2.8 percent.



Credit: Peter McCollough for NPR

When a new machine comes to the workplace, different things can happen. Sometimes the machine replaces humans; sometimes it becomes a tool that allows humans to do more. In the case of the robot pharmacist, both of these things appear to be happening.

If not for the robot, the pharmacy would have hired more new workers, according to Rita Jew, the director of the hospital's pharmacy. So in an abstract way, the robot is replacing people who would otherwise have been hired.

The pharmacists and pharmacy techs who were at the hospital when the robot arrived did not lose their jobs; instead, the robot is a tool that allows them to do more. Rather than counting out pills, they now spend more time consulting with physicians and patients, according to Jew.



Credit: Peter McCollough for NPR

Bonus Robot: The hospital also has a fleet of robots that deliver prescriptions, as well as food and linens. Logistics are a huge issue for hospitals; [one NIH study](#) found that registered nurses spend 7 percent of their time just looking for stuff.

<http://www.npr.org/sections/money/2015/05/27/407737439/watch-robots-transform-a-california-hospital>