Vanderbilt engineers open source medical capsule robot technology

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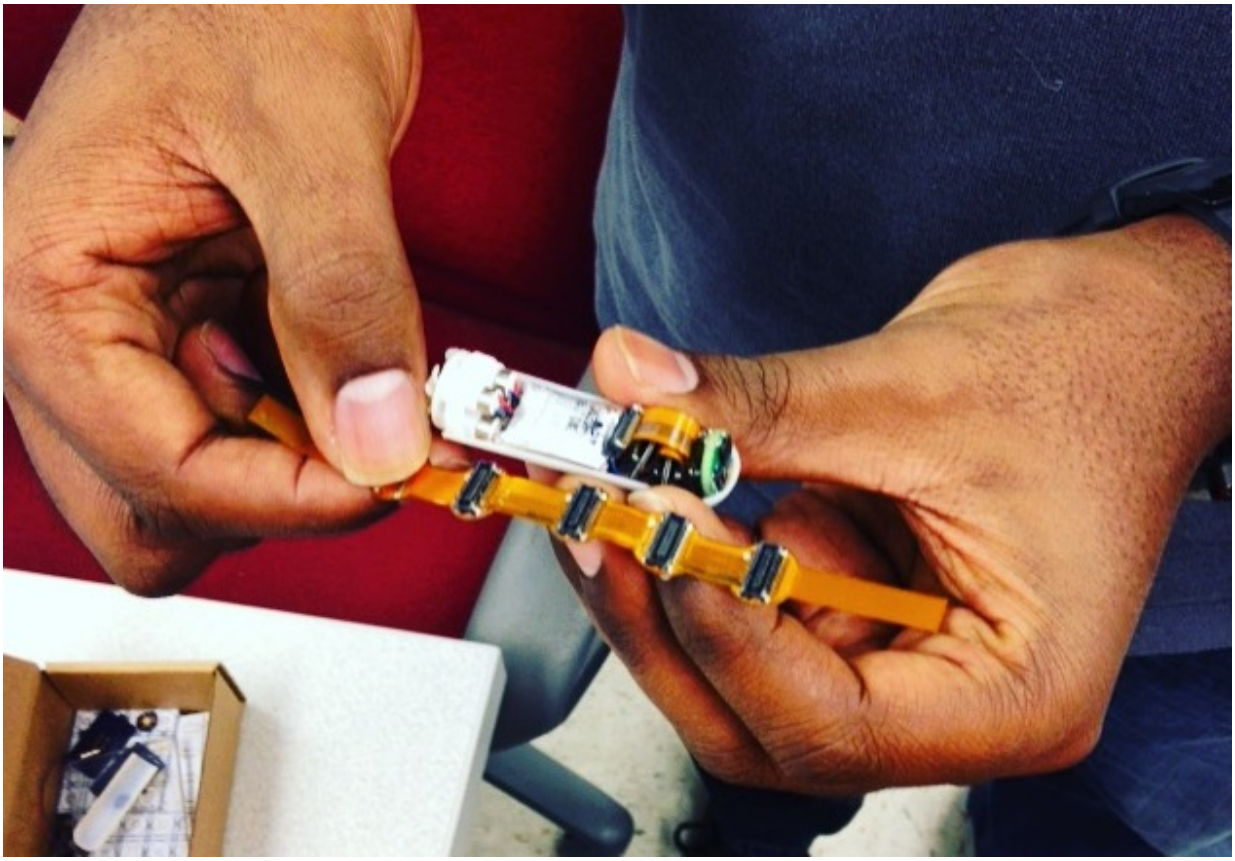

Addisu Taddese, National Science Foundation Graduate Fellowship recipient, holds a medical capsule robot. Credit: Heidi Hall, Vanderbilt University

The likelihood that you will be swallowing a capsule robot in the near future has just jumped up dramatically.

A team of engineers at Vanderbilt University who have pioneered the technology of designing robot capsules small enough to swallow have developed a hardware/software development kit and made it freely available online so that other researchers who want to develop customized medical capsule robots don't have to start from scratch.

"We've done custom capsule design - one for the colon, one for the stomach, another one with a surgical clip to stop bleeding - but we saw we were basically reusing the same components," said Pietro Valdastri, director of Vanderbilt's Science and Technology of Robotics in Medicine (STORM) Lab. "Like it is with Lego bricks, you can reassemble them for different functions. We wanted to provide the people working in this field with their own Lego bricks for their own capsules."

Now research groups with hypotheses about how to use the capsules won't have to redesign boards and interfaces from scratch, which means they can get to the prototyping stage faster.

Provided by Vanderbilt University

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