“ChemBot” takes cue from The Terminator

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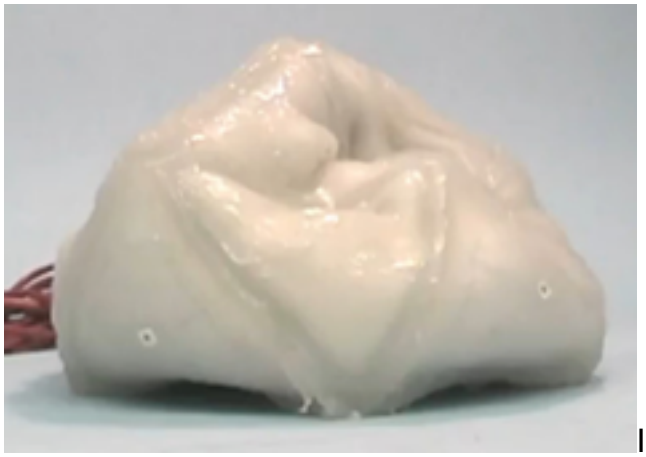

It can morph from a liquid to a solid state, but can’t form “knives and stabbing weapons.” It can squeeze through tight spaces, join with others, and expand in size. No, it’s not the T-1000, but a new “chemical robot” created by the Pentagon.

The Defense Advanced Research Projects Association (DARPA) sought to create a “ChemBot [1]” that could perform the following functions:

• Travel a distance;
• Traverse an arbitrary-shaped opening much smaller than the largest characteristic dimension of the robot itself;
• Reconstitute its size, shape, and functionality after traversing the opening;
• Travel a distance; and
• Perform a function or task using an embedded payload.

To that end, they gave iRobot (of Roomba and Packbot fame) $3.3 million to create a working prototype. The result is a robot that’s one part T-1000, and one part The Blob.

Through a process called “jamming”, the ChemBot is able to transition from a liquid to a solid state, and vice-versa. Ward Carroll, editor of military.com, described jamming [2] as “introducing air into a membrane that's filled with particulate matter— BBs, if you will.”

According to iRobot, the Chembot will be used for recon and search-and-rescue missions. Once I hear the term “liquid metal,” though, all bets are off.

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