

## **MORE THAN MEETS THE EYE**

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Next time that your cd drive refuses to eject a disc, or your phone mysteriously loses power, it may really be the first step toward the human-robot war. Today is the launch date for the [Symbion](#) project, a \$9.3-million venture funded by the European Union to create "Symbiotic Evolutionary Robot Organisms." Robots that communicate, cooperate, adapt and, essentially, think.

Okay, Symbion isn't exactly building [Optimus Prime](#) quite yet. The concept involves mass-producing small robots, each roughly the size of a sugar cube. The robots would then join together to form a larger robot, a phenomenon scientists have cheerfully dubbed, "swarming." The swarm could hypothetically [take the shape of anything](#), from a bridge to a wheel to a giant spider. Each robot in the swarm would function independently, but also be able to perform specific functions to benefit the whole.

Researchers envision deploying the robots in disaster areas, such as mine or building collapses, to look for survivors. [Prof. Alan Winfield](#), a Symbion researcher from the University of West England, described "Dropping hundreds of these small robots into a crevice after a building has collapsed. They would find each other and maybe connect together to form a snake-shaped object that could wriggle through the wreckage."

When joined, the robots share energy and computing power and create a more versatile organism. Each robot will be programmed with software to allow it to configure and optimize its own performance, and effectively heal itself if damaged. Winfield compared the concept to a sponge or jelly fish colony, "In a sponge, even if there is damage to some parts, the overall organism still survives."

So basically, the wet dream of every [Transformers](#) fan is finally coming to fruition. To be honest, the \$9.3 million budget seems quite modest in respect to the possibilities that the project offers. It might not be artificial intelligence, but how long until a self-programming, self-adapting, self-replicating, self-healing robot becomes self aware?

[Military robots](#) have been in use for some time now, and [commercial robots](#) are gaining acceptance, but the idea of a swarm of unstoppable robotic spiders and snakes is not appealing to me.

Technology has empowered us with the ability to do amazing and once-unimaginable things, but we still need to question the practical wisdom of endeavors that [displace the](#)

[basic element of humanity](#) and approach the [apocalyptic science fiction](#) of Hollywood. Hopefully, the brain trust behind Symbion will remember that there are some tasks robots [were not meant to perform](#).

The Symbion project is currently [recruiting](#) Ph.D.s to conduct bioinformatics, evolutionary biology and genomics research. The project is led by Prof. Paul Levi of the University of Stuttgart, Germany.