

## **Pentagon Prepares to Build Robot Army**

Posted by

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### **Pentagon Prepares to Build Robot Army**

A third of the ground vehicles and a third of deep-strike aircraft in the military are expected to become robotic by 2010... They don't care if the guy next to them has just been shot. Will they do a better job than humans? Yes.

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From: GS Listkeeper <[info@greenshoots.org](mailto:info@greenshoots.org)>

Subject: Pentagon prepares to build robot army

To: [list@greenshoots.org](mailto:list@greenshoots.org)

At a time when we should be thinking about world governance and peace, the States are preparing to launch robotic armies on us.

Pentagon prepares to build robot army

"They do not get hungry, they are not afraid"  
CAMERON SIMPSON

The Herald (Scotland)

February 17, 2005

<http://www.theherald.co.uk/news/33634.html>

- -In less than a decade robots are expected to become a major fighting force within US Army ranks.
- -"They don't care if the guy next to them has just been shot. Will they do a better job than humans? Yes."
- -A third of the ground vehicles and a third of deep-strike aircraft in the military are expected to become robotic by 2010.
- -As the first lethal robots head for Iraq, the role of the robot soldier as a killing machine has barely been debated.

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- "I have been asked what happens if the robot destroys a school bus rather than a tank parked nearby. We will not entrust a robot with that decision until we are confident they can make it."

Look out. With a war chest of 67.3bn the biggest in US military history the robot army is on its way. They do not get hungry, they are not afraid and they don't forget their orders.

By April, an armed version of the bomb-disposal robot, capable of firing 1000 rounds a minute, will be at work in Baghdad.

Although controlled by a soldier with a laptop, the robot soldier R2-D2 with an attitude will be the first thinking machine of its kind to take up a front-line infantry position, ready to kill enemies.

"The real world is not Hollywood," said Rodney Brooks, director of the Computer Science and Artificial Intelligence Laboratory at Massachusetts Institute of Technology and a co-founder of the iRobot Corporation.

"Right now we have the first few robots that are actually useful to the military."

While not yet ready to be used as a fighting force, hundreds of robots have been deployed to dig up roadside bombs in Iraq, scour caves in Afghanistan and guard weapons depots.

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In less than a decade robots are expected to become a major fighting force within US Army ranks.

Technological advances made possible by the \$67.3bn (\$127bn) Future Combat Systems contract will allow them to hunt and kill enemies while their human controllers remain a safe distance away, carefully monitoring proceedings through a laptop.

The one metre-tall "soldiers" will be equipped with tank tracks, night vision and mounted automatic weapons.

Gordon Johnson, of the Joint Forces Command at the Pentagon, said: "They don't get hungry, they're not afraid, they don't forget their orders.

"They don't care if the guy next to them has just been shot. Will they do a better job than humans? Yes."

Experts say the new generation of soldiers will be increasingly capable of thinking, seeing and reacting like humans.

In the beginning, they will be remote-controlled, looking and acting like lethal toy trucks.

As the technology develops, they may take many shapes. Robots in battle, as envisaged by their builders, may look and move like humans or hummingbirds, tractors or tanks, cockroaches or crickets.

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With the development of nanotechnology ? the science of very small structures ? they may become swarms of "smart dust".

The Pentagon intends robots to haul munitions, gather intelligence, search buildings or blow them up.

As technology advances, so will the robots' intelligence and autonomy, although officials are quick to point out that these are not the killing machines of science fiction such as the Terminator, a human-looking, apparently unstoppable cyborg, or RoboCop, "part man, part machine, all cop, the future of law enforcement".

The first models will only shoot when a human operator presses a button after identifying a target on video recorded by the robot's cameras.

Automated forces could save lives but the cost is expected to drive the US defence budget up by almost 20%. The annual costs of buying new weapons will rise 52% to ?62.9bn (\$118.6bn).

But while progress has been rapid, critics warn there will be many questions to answer before the military programmes machinery to kill, trusting science with human life.

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The Pentagon believes it could take until 2035 to develop a robot that looks, thinks and fights like a soldier.

Well before then, some involved in the work say the military will have to answer tough questions if it intends to trust robots with the responsibility of distinguishing friend from foe, combatant from bystander.

As the first lethal robots head for Iraq, the role of the robot soldier as a killing machine has barely been debated.

Even the strongest advocates of automatons say war will always be a human endeavour, with death and disaster.

Supporters such as Robert Finkelstein, president of Robotic Technology, said: "The Pentagon's goal is there but the path is not totally clear."

The history of warfare suggests that every new technological leap ? the longbow, the tank, the atomic bomb ? outraces the strategy and doctrine to control it.

Mr Johnson, who leads robotics efforts at the Joint Forces Command research centre, said: "The lawyers tell me there are no prohibitions against robots making life-or-death decisions."

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"I have been asked what happens if the robot destroys a school bus rather than a tank parked nearby. We will not entrust a robot with that decision until we are confident they can make it."

Trusting robots with potentially lethal decision-making may require a leap of faith in technology not everyone is ready to make.

Bill Joy, a co-founder of Sun Microsystems, has expressed concerns that twenty-first century robotics and nanotechnology may become "so powerful that they can spawn whole new classes of accidents and abuses".

He added: "As machines become more intelligent, people will let machines make more of their decisions for them.

"Eventually a stage may be reached at which the decisions necessary to keep the system running will be so complex that human beings will be incapable of making them intelligently.

"At that stage the machines will be in effective control."

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Pentagon prepares to build \$70bn robot army  
By Francis Harris in Washington  
(Filed: 17/02/2005)

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[www.telegraph.co.uk/news/main.jhtml?xml=/news/2005/02/17/wrobot17.xml&sSheet=/news/2005/02/17/ixworld.html](http://www.telegraph.co.uk/news/main.jhtml?xml=/news/2005/02/17/wrobot17.xml&sSheet=/news/2005/02/17/ixworld.html)

The Pentagon is spending ?70 billion (\$132.65 billion) on a programme to build heavily-armed robots for the battlefield in the hope that future wars will be fought without the loss of its soldiers' lives.

The scheme, known as Future Combat Systems, is the largest military contract in American history and will help to drive the defence budget up by almost 20 per cent to just over