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Ken Goldberg

CBS NEWS

Robots versus Ebola

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As Ebola continues to ravage parts of West Africa, scientists and engineers at four U.S. universities and research centers are meeting Friday to discuss ways technology can be used to battle the ongoing health crisis.

With the encouragement of the White House Office of Science and Technology Policy, engineers in Massachusetts, Texas, Washington, D.C. and at the University of California Berkeley will conduct research on how telemedicine technology could help in the fight against Ebola.

The high infection rate of health care workers stationed in West Africa has prompted efforts to find innovative ways to care for patients. Several hundred health care workers have been infected with Ebola and many have died, which has put even greater stress on the region's already overwhelmed hospitals and treatment centers.

Researchers are working on technology that combines remote-control robotics and Skype-like communications, so a doctor could oversee patients and staff even if he or she is a world away. The robots could also be used for monitoring to ensure health care workers stick with protocols when removing personal protective gear.

InTouch Health, a company involved in the project, calls the concept an "eBola solution."

"The great thing about putting a robot in there is that you could then basically keep people out of harm's way," Ken Goldberg, professor of engineering at UC Berkeley, told CNET's Kara Tsuboi. "When you're trying to diagnose a patient, there's a lot of nuance. You want to be able to look from different angles."

Goldberg said the group is working toward developing a robot that could actually handle some hands-on patient care, such as inserting IV lines -- a procedure that involves close contact with a patient's blood and therefore poses a high risk for transmission of the virus.

Engineers say the robots could also help with cleanup and decontamination, though there are some challenges which would need to be addressed. "Most robots have wheels. Well,

those can immediately get contaminated," said Goldberg. "And we don't actually know how to sterilize them."

These robots won't come cheap, with a pricetag upwards of $2,000. Goldberg said the project will take several years but he and his team hope to be ready for the next public health crisis.

"The capabilities are limited right now. There's a lot of research that needs to be done," he said.