

# Robot Rodeo at Sandia Labs showcases bomb squad expertise

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A robot performs a rescue operation on a dummy victim in a training exercise at a previous Robot Rodeo. Credit: Randy Montoya

Bomb squads from across the country saddled up their robots and are duking it out at the ninth annual Western National Robot Rodeo and

Capability Exercise at Sandia National Laboratories. The five-day event offers a challenging platform for civilian and military bomb squad teams to practice defusing dangerous situations with robots' help.

The rodeo, which began Monday, is designed with elaborate props to model the atmosphere of real-life emergencies in a low-risk, competitive environment. Robots are life-saving tools for the nation's hazardous device teams, providing a buffer between danger and first responders.

"Our underlying goal is that we want to make good [robot](#) operators into great robot operators," said Jake Deuel, a Robot Rodeo coordinator and Sandia manager. "We design problems and scenarios that take our state and local bomb squad teams way outside their comfort zones, outside the known techniques and procedures to see how they can handle it."

## **UAVs introduced at Robot Rodeo**

This year, Sandia is introducing [unmanned aerial vehicles](#) (UAVs) into the competition. Sandia's David Novick, a pilot and robotics engineer, will be flying the UAVs at the event.

"It's exciting to be able to show off a new technology to this group," Novick said. "This technology is a game changer. It's a stable, highly intelligent vehicle with controls similar to an airplane. Emergency responders can use these small, portable vehicles to get a bird's eye view of a situation to help them get out of a tight spot."

Scenarios at the rodeo change every year and grow in difficulty, which brings competitors back. The event prepares officers for the types of situations they may face on the job.

"The only time we get to simulate the level of complexity that we face in real life is at the Robot Rodeo," said Albuquerque Police Sgt. Carlos

Gallegos. "Robots are saving officers' lives and have been critical to our SWAT teams." Past events in the competition have included managing suicide bombers, operating in smoke-filled buildings, responding to roadside bombs, rescuing first responders and removing bombs from inside an aircraft.

Sandia partners with Los Alamos National Laboratory on the annual event, which lets nine teams practice emergency scenarios where robots are life-saving tools.

Provided by Sandia National Laboratories

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