**Astro, Florida Atlantic University’s Smart Robodog**

**Photo Captions:**

**Photo Credit:** Alex Dolce, Florida Atlantic University

**Images of Astro:** Astro not only looks like a dog; he learns like one too. That’s because he doesn’t operate based on preprogrammed robotic automation. Instead, Astro is being *trained* using inputs to a deep neural network. His key missions will include detecting guns, explosives and gun residue to assist police, the military, and security personnel.

**Astro Group Photo:** (from left) [Elan Barenholtz](http://www.psy.fau.edu/people/ebarenho.php), Ph.D., an associate professor in FAU’s [Department of Psychology](http://www.psy.fau.edu/), co-director of FAU’s MPCR laboratory, and a member of FAU’s Brain Institute ([I-BRAIN](http://ibrain.fau.edu/)), one of the university’s four research pillars; Pedram Nimreezi, director of intelligent software in FAU’s MPCR laboratory, chief technology officer for RedGage and a martial arts expert; and [William Hahn](http://mpcrlab.com/staff/william-hahn/), Ph.D., an assistant professor in FAU’s [Department of Mathematical Sciences](http://www.math.fau.edu/) and co-director of FAU’s MPCR laboratory.

**Video Caption:** Just like a regular dog, Astro responds to commands such as “sit,” “stand” and “lie down.” Eventually, he will be able to understand and respond to hand signals, detect different colors, comprehend many languages, coordinate his efforts with drones, distinguish human faces, and even recognize other dogs.

**Video Credit:** Florida Atlantic University