

## Smart harness could rival humans in dog training



We've seen tech-wearing animals help [clean up illegal city garbage dumps](#) and [sea predators tweet when they're close to beaches](#). Now, following several successful trials, researchers at [North Carolina State University](#) are hailing a smart harness as proof-of-concept, and looking ahead to its application in service dog training.

The harness fits around the dog's body and contains a number of technologies, including a computer the size of a deck of cards, which monitor the animal's posture and actions such as sitting, standing and eating. Data is transmitted wirelessly, and whenever the harness detects a correct change in position, a series of beeps are emitted and dog treats are dispensed from a nearby container.

The scientists worked closely with expert dog trainers in order to make the tech fully relevant to the way dogs learn. In the trials, human trainers were 100 percent accurate, but the speed of their response varied significantly. The algorithm, on the other hand, was 96 percent accurate while being incredibly consistent in its speed of response. Consistency is of particular importance when training animals.

The research team sees future development of the harness focusing on animal-computer interaction, particularly in high-risk, complex situations such as natural disaster recovery and explosive detection. Advancements will also improve functionality for human health support, for example allowing diabetic alert dogs to call for help.

Where else could tech-wearing animals improve public health and safety?

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