

Bar-Ilan researchers develop mini-robots to bolster IDF patrols

• By JUDY SIEGEL

Instead of soldiers risking their lives patrolling enemy borders, robots the size and shape of vacuum cleaners could replace them, thanks to an algorithm developed at Bar-Ilan University's computer sciences department. The mobile electronic guards were displayed by their developers, Dr. Gal Kaminka and Prof. Sarit Kraus, this week at an academic fair.

Kaminka said the robots can divide up territory to be watched and protected without human intervention and react to incursions in that area. The robots have a variety of sensors, including video and others that react to sound waves, each with a "brain" of their own to carry out missions. But to handle an incursion, the robot team must work together.

The algorithm enables the robots to patrol at their maximal level as a coordinated team, said Kaminka. Even if the enemy is aware of them, he will find it difficult to penetrate their security net because he can't predict what they will do and how they will move. The developers do not intend to equip the robots with weapons, but only warning systems and sensors; if they discover an intruder, human soldiers will have to shoot or apprehend them.

"The integration of robots in the military has been worked on for years, and we see only small pilotless planes that don't have to deal with difficult terrain. Now these robots are an important step in integrating land robots that will save manpower in the military," said Kaminka. The robot patrol project was financed by the Defense Ministry.