Introduction to Neural Networks

Written by Lior
Monday, 02 September 2002 14:51 - Last Updated Monday, 31 January 2011 15:04

I wrote this paper for a   RSSC presentation of how basic neural   networks work and how they can be implemented in robotics. The network is   of a simple structure and follows some of the experiments described by   Ulrich Nehmzow on a robot called
 Alder
.   The robot that I used was
 Sparky
.   Developing the software was challenging because the Basic Stamp does not   use floating point so everything had to be converted to use integer math.

The code can be found here: nueral_net2.bs2.txt

Here is a video of the robot in progress. The robot moves towards the   wall and tires a move. When the move fails (the sensors are still on) the   robot tries a another move. Since this move worked, next time the robot   encounters the same obstacle it "knows" what to do.

{youtube}1T7xi8jCgOE{/youtube}

Paper

Introduction to Neural Networks

Written by Lior
Monday, 02 September 2002 14:51 - Last Updated Monday, 31 January 2011 15:04