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Shallow Blue: A Tic-Tac-Toe Playing Robot

Division: Earth & Environmental Sciences

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Abstract: The purpose of this experiment was to design, build, and program a robot that played tic-tac-toe. The robot, Shallow Blue, was built using Lego Mindstorms and programmed using NQC. Two experiments tested the playing level of the robot and whether the robot could be distinguished from a human opponent. As hypothesized, Shallow Blue was an expert player that could not be distinguished from a human.

Awards	Value
The University of Western Ontario Scholarship Gold Medallist - \$2000 Entrance Scholarship Sponsor: University of Western Ontario	\$2 000
Gold Medal - Computing & Information Technology - Junior Sponsor: Intel of Canada, Ltd.	\$1 500
Total	\$3 500