

國立高雄大學應用數學系

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Computer player for Gomoku and pick-and-place task using robotic arm

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摘 要：

Deep learning and intelligent manufacturing are widely applied nowadays. In this paper, we implement two applications of these two fields. The application of deep learning is to train a computer player for Gomoku. Gomoku is a chess game with a simple rule that whoever gets their stones 5-in-a-row wins. We first train the Gomoku player using supervised learning. Secondly, we also enhance our Gomoku player with reinforcement learning. The application of intelligent manufacturing is to accomplish a pick-and-place task using a robotic arm. Instead of hard coding for specific object and target positions, we want the robotic arm to detect the positions and accomplish the task automatically. So far, some results have been achieved.