

CLASSIFYING CAPABILITIES: ROBOTICS AND ARTIFICIAL INTELLIGENCE



DJI Phantom II
Image from Drohnenfleiger
General Atomics MQ-9 'Reaper'
Image produced by dimosbarbos

Auto-pilot and Waypoint Navigation

Navigates a pre-programmed route and responds to changes in environment without direct human control



ABB Industrial Robot IRB 6650S
Image from ABB

Repeated Action Without Human Control

Reprogrammable system performs a pre-defined series of actions



DJI Phantom II
Image from Drohnenfleiger

Heightened Situational Awareness and Autonomous Response

Processes extensive range of inputs simultaneously and reacts appropriately to scenarios not previously encountered

Operator-Free Response to Altered Environment

Senses changes in environment, calculates potential responses and acts without human operator confirmation



'Iron Dome' Missile Defence System
Image produced by Grafxbos
Rethink Robotics 'Baxter' Industrial Robot
Image from Rethink Robotics



Universal Robotics UR10 Robotic Arm
Image from Universal Robotics

Autonomous Learning and Robot Evolution

Assesses past performance in completing a pre-defined task, identifies areas of weakness and modifies behaviour to increase effectiveness