

CAIE Computer Science IGCSE

6.2 Robotics

Flashcards

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What is robotics?



What is robotics?

A branch of computer science that incorporates the design, construction and operation of robots.



Name three characteristics of robots.



Name three characteristics of robots.

- Robots have a mechanical structure or framework
- Robots contain electrical components, such as sensors, microprocessors, and actuators
- Robots are programmable



What advantages do robots have?



What advantages do robots have?

Can work continuously without fatigue, perform tasks with high precision, operate in hazardous environments, increase productivity, perform repetitive tasks, and improve safety.



What are disadvantages of robots?



What are disadvantages of robots?

High initial cost, potential job losses, need for maintenance, complex system failures can stop operations, lack human creativity, and programming errors can cause accidents.



What are some common
areas where robots are
used?



What are some common areas where robots are used?

Industry (assembly lines), transport (driverless cars, drones), agriculture (planting, harvesting), medicine (surgery, medication delivery), domestic (vacuum cleaners), and entertainment (toys, animatronics).

