

A.3 cont.

Mechanical engineering – Using design, construction, and mechanical power to create machines and mechanical systems that solve a problem.

Specialized engineering fields – These engineering fields use two or more types of engineering together to form a brand new kind of engineering. Biomedical and robotics engineers are two examples.

A.4

What is Robotics?

Robotics is the type of specialized engineering that deals with the design, construction, operation, and application of robots.

A **Robot** is any man-made machine that can perform work or other actions normally performed by humans.

Robots can be operated by remote control (known as **teleoperated robots**), automatically by themselves (known as **autonomous robots**), or a combination of teleoperated and autonomous operation (known as **hybrid robots**). Robots have become more popular over time because they are able to perform very repetitive tasks or very dangerous tasks in the place of humans.



Robotic assembly lines can build cars, computers, and other things that you use in everyday life.



Police robots can investigate risky situations while human officers control them from a safe distance.



Service robots can clean your floor, mow the lawn, or assist those with disabilities.



Deep sea robots crawl on the ocean's floor, discovering new life that thrives nearly six miles under water.