name: class: date:

Microcontrollers in Robotics

1. Fill in the gaps with the right words!
2. Scan the QR code to check your answers interactively!
3. Copy the text in your exercise book!
4. Formulate the content of the text yourself!
   Use all gap words!

In the world of electronics, _____ play a crucial role in the development and functioning of various devices. These small, yet powerful _____ are essentially tiny computers that can be programmed to perform a wide range of tasks. They are found in everyday _____ such as washing machines, microwave ovens, and cars, making our lives easier and more efficient.

A _____ consists of a processor, memory, and input/output (I/O) peripherals on a single chip. This integration allows them to control _____ by sending and receiving data, making decisions, and performing actions based on the program stored within their _____.

One of the most exciting applications of microcontrollers is in the field of robotics. Here, they serve as the brain of _____, providing the intelligence needed to interact with the physical world. By processing inputs from _____, microcontrollers can make robots move, avoid obstacles, or even carry out complex tasks autonomously.

Programming a microcontroller involves writing _____ in languages such as C or Python, which dictates its behavior. This flexibility in programming makes them highly adaptable to various _____, from simple DIY tasks to sophisticated industrial machinery.

The Arduino platform is a popular choice for _____ and educators due to its user-friendly interface and vast community support. It allows individuals to easily _____ with microcontrollers, developing their understanding of electronics and robotics.

Microcontrollers also play a _____ in the Internet of Things (IoT), connecting physical devices to the internet for data exchange and remote control. This _____ has the potential to further revolutionize how we interact with the world around us, making _____ smarter and more responsive to our needs.

Despite their small size, microcontrollers are powerful _____ that drive innovation in technology. They enable developers and engineers to bring their ideas to life, contributing significantly to _____ in hardware and robotics.

memory | items | robots | devices | experiment | key role | components | microcontrollers | environments | tools | hobbyists | projects | advancements | sensors | microcontroller | code | technology

Reference: https://materials.school/educational-activities/task-collection/computer-science/microcontrollers-robotics (created with ChatGPT)