

METHODOLOGY OF TEACHING THE FUNDAMENTALS OF ROBOTICS IN THE 6TH CLASS TECHNOLOGY LESSONS

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Abstract: *In this article, the content of the technology science "Department of Robotics", the interrelationship, sequence and continuity of the topics are analyzed. The issues of developing an effective mechanism for the formation of a number of personal qualities such as knowledge, creativity and construction of students of general education schools on the studied subject are covered.*

Key words: *Technology, robotics, mechatronics, robotics, electrical engineering, automation, arduino.*

Technology (Greek: "techno" - craft, master and "logos" - science, education) - methods of turning raw materials into finished products based on scientific practice.

As science and technology develop, technology is updated and changed. For the development of technology in any field, there should be a uniform procedure for the development of technological documents, technological processes, and the use of standardized devices and equipment. Technology is a technology consisting of conditions for changing the shape, size, characteristics, and tone of materials, raw materials, or certain products used in industrial processes for product production.

The activities of production, transportation, storage, and control, which are part of the general industrial process, are also called technology. Production, service, education, etc. depending on the change of society. the concept of innovation technology is entering various fields. Current technology:

- front-line technology;
- waste-free technology;
- production and processing technology;
- is divided into international standard technology.

If we look at the education system today, we can see that the development of mutual integration processes between science, education and production is one of the urgent issues. In particular, in the modernization of technology education, as a result of the step-

by-step implementation of mutual integration processes of the school system, from simple to complex, it is possible to train mature specialists for the production sectors.

The inclusion of components necessary for the development of the economy of Uzbekistan, such as mechatronics, robotics, electrical engineering, automation, Arduino, etc., in the content of the technology science textbooks released in the new edition, will certainly have a positive effect on the professional qualities of future school graduates and specialists.

Robotics (Czech — forced labor + ancient Greek: téchnē — art; English: robotics) is a combined field of mechanical, electrical, and electronic engineering and computer science that deals with the construction, operation, and use of robots, as well as their control, sensing, and data processing. field.

The basis of the modern education system is a high-quality and high-tech environment. Its creation and development is technically complex, but such an environment serves to improve the educational system and the development of technology in the educational process. A number of topics on teaching the basics of robotics in the "Technology and design" direction of the science of technology are discussed.

Therefore, in the technology lessons taught in general education schools, students learn about the production process, production areas, the equipment and mechanisms-machines used in it, their types and use, and multimedia with different appearances. the process of making items based on programs is taught step by step. As a result of this, it is planned to acquire knowledge, skills and qualifications for guiding young students to the profession, and to form the ability to apply them in life.

The role of the education system in accelerating the socio-economic development of our country and ensuring its economic security is incomparable. Internationalization of education taking place in the educational system in the world, rapid changes in the educational program of students, among global trends, the issue of ensuring the quality of education is gaining special importance.

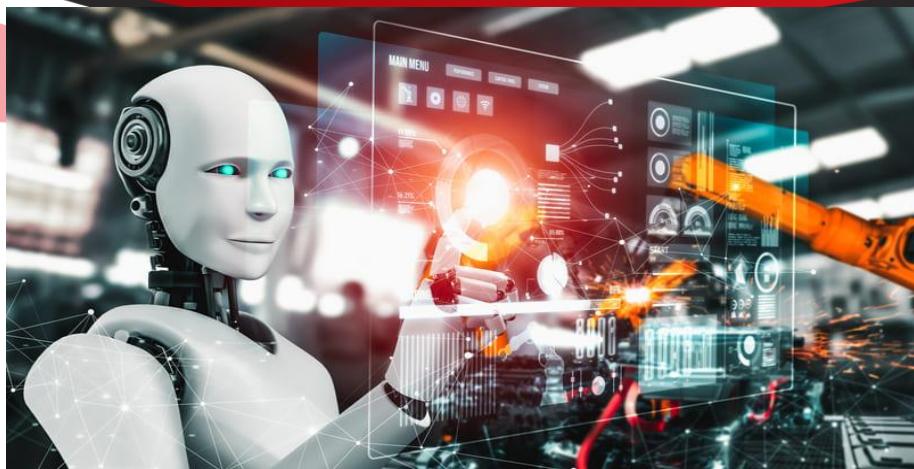


Figure 1. The operation of robots.

As a result of the reforms carried out in any educational system, teaching technology lessons taught in secondary schools on the basis of modern educational technologies has a good effect. The 6th grade will form students innovative knowledge, necessary skills and competencies based on the teaching of the Robotics Fundamentals section of technology science.

In conclusion, today, in order to attract students from school age to the creative process, to develop logical thinking, to enable them to choose their own career path in the future, it is necessary to eliminate existing contradictions and promote the continuity of continuous education interdisciplinary robotics teaching. In order to ensure this, I think that it is necessary to improve this field by organizing not only theoretical but also practical lessons for students.

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