**Задания для дистанционного обучения по английскому языку на**

**15.04.2020 г.- 16.04.2020 г.**

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Здравствуйте, уважаемые обучающиеся, как Вы знаете на время сложной эпидемиологической обстановки, наш техникум перешел на дистанционное обучение, в связи с этим отправляю Вам задания для самостоятельного изучения.

Порядок выполнения:

* Задания выполняются в рабочей тетради обучающегося.
* На период дистанционного обучения выполненную работу

необходимо отправить на электронную почту: [Elen.bondarevva@yandex.ru](mailto:Elen.bondarevva@yandex.ru)

* В теле письма необходимо указать ФИО и № группы.

Практическое занятие по теме:

**Достижения и инновации в области науки и техники.**

*Цель:* изучение новой лексики по теме, чтение на уровне детального понимания.

**Задание № 1. Study the vocabulary.**

**Automation in the human's life.**

1. manufacture — производство
2. previously — ранее
3. sequence — последовательность
4. non-manufacturing — непроизводственный
5. independently — независимо
6. development — развитие
7. simplification — упрощение
8. to resemble — походить
9. efficiency — эффективность
10. environment — окружение
11. dangerous — опасный
12. workpieces — заготовки
13. feedback principle — принцип обратной связи
14. ability — способность
15. flyball governor — центробежный регулятор
16. steam engine — паровоз
17. commonly — обычно, обыкновенно
18. apply – употреблять, применять
19. to facilitate — способствовать
20. influence — влияние
21. rapidly — быстро
22. edit — редактировать
23. consumer product industries —отрасли экономики по производству потребительских товаров
24. nevertheless — несмотря на, однако
25. particular — особый
26. production needs — производственные нужды

**Задание № 2. Translate the text from English into Russian.**

**Automation in the human's life**

Automation is the system of manufacture performing certain tasks,previously done by people, by machines only. Thesequences of operations are controlled automatically.

The term automation is also used to describenon-manufacturing systems in which automaticdevices can operate independently of human control.

Automated manufacturing had several steps in its development. Mechanization was the first step necessary in the development of automation. The simplification of work made it possible to design and build machines that resembled the motions of the worker. These specialized machines were motorized and they had better production efficiency.

Industrial robots, originally designed only to perform simple tasks in environments dangerous to human workers, are now widely used to transfer, manipulate, and position both light and heavy workpieces performing all the functions of a transfer machine.

In the 1920s the automobile industry for the first time used an integrated system of production. This method of production was adopted by most car manufacturers and became known as Detroit automation.

The feedback principle is used in all automatic-control mechanisms when machines have ability to correct themselves. The feedback principle has been used for centuries. An outstanding early example is theflyball governor**,** invented in 1788 by James Watt to control the speed of thesteam engine.

Using feedback devices, machines can start, stop, speed up, slow down, count, inspect, test, compare, and measure. These operations are commonly applied to a wide variety of production operations.

Computers have greatlyfacilitated the use of feedback in manufacturing processes.

Another development using automation are the flexible manufacturing systems (FMS). A computer in FMS can be used to monitor and control the operation of the whole factory.

Automation has also had an influence on the areas of the economy other than manufacturing. Small computers are used in systems called word processors, which are rapidly becoming a standard part of the modern office. They are used to edit texts, to type letters and so on.

The automation technology in manufacturing and assembly is widely used in car and other consumer product industries.

Nevertheless, each industry has its own concept of automation that answers its particular production needs.

**Задание № 3. Translate the text from English into Russian.**

**Applications of Automation and Robotics in Industry.**

Manufacturing is one of the most important application area for automation technology. There are several types of automation in manufacturing. The examples of automated systems used in manufacturing are described below.

1. Fixed automation, sometimes called «hard automation» refers to automated machines in which the equipment configuration allows fixed sequence of processing operations. These machines are programmed by their design to make only certain processing operations. They are not easily changed over from one product style to another. This form of automation needs high initial investments and high production rates.

2. Programmable automation is a form of automation for producing products in largequantities**,** ranging from several dozen to several thousand units at a time. For each new product the production equipment must be reprogrammed and changed over. This reprogramming and changeover take a period ofnon-productive time. Production rates in programmable automation are generally lower than in fixed automation.

3. Flexible automation is a kind of programmable automation. In flexible automation the number of products is limited so that the changeover of the equipment can be done very quickly and automatically. The reprogramming of the equipment in flexible automation is done at a computer terminal without using the production equipment itself. Flexible automation allows a mixture of different products to be produced one right after another.

* **Hometask**

**Задание № 1. Make up 5 questions to the text (task № 3).**

*P.S. При возникновении вопросов, обращайтесь. Продуктивного обучения.*