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MSRC - the next step

PhD Pavel Sinilkov
sinilkov@mail.com

Corresponding author: * **PhD Pavel Sinilkov**
Mobile Number: *** **Email:** sinilkov@mail.com

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Abstract:

The proposed material is an introductory article that aims to introduce the reader to a new direction in science. The MSRC mobile self-programmable complexes represent a new platform in engineering, where many sciences are combined, resulting in a new generation of robots with multiple human capabilities. Moreover, the MSRK will already be the main driver of new technology innovations in practice. It sounds amazing, but the MSRC is already knocking on the door of our lives.

Keywords:

Robotics, artificial intelligence, programming, mobility.

1. Introduction

There are different types of robots in the modern world. Mobile, industrial, military, service, manageable, special and more.

This most crude classification of robots shows that they are increasingly entering human life. This determines the need for their development. Robots are machines that replace human labor in every sphere of manifestation (1-13).

By analogy with industrialization from the late 18th century, when it was believed that machines could not transcend the skills of humans, but only to replace heavy physical labor. Now we can see how wrong this idea was. We have seen that machines can fly while humans cannot, they can calculate faster than humans, move faster than humans, transmit and receive long-distance data, perform activities that humans cannot to do (14-29).

That is, machines are already beyond human capabilities and this is perceived as normal by modern humans(30-45). It is quite normal to accept that machines can intellectually outperform humans in their abilities (45-87). This name is realized by the MOBILE SELF-PROGRAMMABLE ROBOTICAL COMPLEXES - MSRC.

2. Exhibition

When talking about ISPC, one does not have to mean just one robot, in the sense that we bring in an industrial robot or a service robot or a military robot, etc., but for a whole set of robots assembled and integrated into a single machine that can to perform a whole set of tasks. It may, moreover, create a sequence of possible tasks that will lead to the goal set, and be stored as a basis for future goals.

2.1 Device

MSRC is a complete machine complex. The combination of machine and biological organs goes beyond the MSRC and this is significantly contrary to the strategy and design of the MSRC, in most cases reducing the capacity of the machine complex.

The general scheme of the MSRC is as follows:

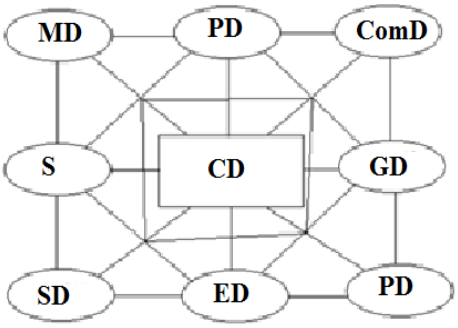

Fig. 1 General diagram of the MSRC. CD - control device; ED - energy device; MD - mobile device; PD - protective devices; ComD - communication devices; S - sensors; GD - gripping devices; SD - service devices, PD - Pairing devices.

In the center is the control device - CD, which can be just like a modern computer. Modern computers have enough power to create an MSRC. Of course, for more complex models the CD is built up of many integrated multiplexer systems.

The other elements are actuators, or periphery. . There is a primary or final processing of the information in the periphery. This is at the heart of the connections between the different peripherals.

MSRC is not just about connecting mechanics with Artificial Intelligence. This is the necessary amount of mechanics and the right way of control to be able to solve a certain complex of objective reality problems.

2.2 Software

The software is significantly different from the software of the former electronic computers. The major differences come from the purpose of the software. An example is the difference in PC and industrial robot software.

The programming of the MSRC has a storey structure that has been used so far in the art but not considered in this way. Programming in Assembly language and high-level PC language is one example. These are just two stages of the programming process.

There are three more layers of software under MSRC.

The next floor develops the self-programming of the MSRC, the processing of the input from the sensor and the output to the periphery and maintenance of the memory dynamic. This is observed on a finger that seems easy to reach but the processing is actually changing the dynamics of artificial intelligence.

The fourth level develops the dynamics of information processing by adding, supplementing and modifying complexes and making decisions.Programming at this level almost completely loses the kind we are used to seeing. Here, the command-and-effect programming becomes a conditionkind.

The fifth level is an opportunity for external influence, control of behavior and change ofpriority. In fact, at this level the intellectual periphery of the MSRC is being realized.

2.3 Action

MSRC is a single complete robotics complex that exceeds many times the human capabilities in the surrounding reality.

The name itself indicates the action of the MSRC. This is a self-programmable machine. Which means that the present and the behavior is different from yesterday, which will be different from tomorrow. However, this is only apparent because the behavior over a period of time is strictly logical.

Pairing with the MSRC is not just at the communication level, as it is at the human level. It can be implemented in many other ways, including at a design level as needed.

The rich possibility of sensory provision and the possibility of pairing makes the MSRC a complex that constantly monitors the dynamics of the environment. Considering the processing of Level 4 information and Level 5 capabilities, the MSRC has the ability to predict the dynamics of the environment in the present, which reduces the risk of surprises.

It is important to note that interoperability is a very broad concept in the MSRC. Compatibility is at the level of structural elements, at the level of data processing, at the level of software. This leads to the possibility of a change of priority, which means that a service complex can be transformed into a rescue or research or repair complex.

2.4 Construction

There are many structural features of the MSRC. An MSRC may have different appearance structures. An analogy can be made with wildlife. The difference is that the different types of kinematics in their form of high-level control are similar and this leads to the possibility of pairing and compatibility

Mobility plays a key role in construction. The kinematic chain of the MSRC is required to be able to provide mobility of the complex. Mobility is characterized by a number of roads that can be navigated by MSRCs without problems, as well as roads that can be accessed by adapters.

The designs of the MSRC are in accordance with their purpose and the surrounding environment. Those that are designed to work in pipes and pipe networks are of a different design from those that are service complexes and service hospitals, as well as those designed to save people from distress ships, earthquakes or major industrial accidents.

3. Conclusion

MSRC is a complete machine with capabilities far exceeding the capabilities of the modern man.

1. MSRCs a multifunctional machine that can be commercially produced and programmed for various purposes;
2. The MSRC can be easily reprogrammed and re-prioritized;
3. An MSRC can also be a very useful and very dangerous machine, so oversight of its production needs to be great;
4. Knowledge of the fifth level of programming is crucial to maintaining control over the MSRC;
5. In practice, the MSRC develops the priority itself, and this priority can be introduced into another machine and further developed.

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