OT7.3 and 7.4 - Purpose and use of robots

In this theory task, you will learn about the:

1. Purpose of robots including:

* repetitive or dangerous tasks
* operating in remote locations

1. Use of robots for:

* Exploration
* Assembly
* Maintenance and repair

# Key Learning Objectives:

1 - Knowledge and understanding of the effects of past, current and emerging information and software technologies on the individual and society

3 - Responsible and ethical attitude related to the use of information and software technology

Read text pages 288 – 293 of your textbook and then answer the following questions. You may need to research some answers using the Internet. Present your work as a well formatted Word document, making use of heading styles and page numbers.

**\*\*\*\*\*\*Correctly cite all reference material in a bibliography\*\*\*\*\***

# Elementary

1. Briefly describe 5 reasons why robots are sometimes preferred to human labour.
2. Robots are often used to complete dirty, repetitive, dangerous or impossible tasks. Provide an example of each of these types of tasks.

# Basic

**Elementary +**

1. Write a paragraph on the types of jobs that would not be suitable for robots. Justify your comments.

# Sound

**Basic +**

1. **Assembly Robots:** Research and document your findings on a robot used in industry. Include:
   1. A labelled diagram of the robot (including all sensors)
   2. A description of what the robot does
   3. Whether the robot is stationary or mobile
   4. A link to a video clip of the robot in action
   5. If possible - approximate cost of the robot

In this case, you might like to consider the VW car factory.

# Competent

**Sound +**

1. **Medical Science:** Research and document your findings on a robot used in medical science. Include:
   1. A labelled diagram of the robot (including all sensors)
   2. A description of what the robot does
   3. Whether the robot is stationary or mobile
   4. A link to a video clip of the robot in action

# Extensive

**Competent +**

1. **Exploration:** Research and document your findings on a robot used in exploration. Include:
   1. A labelled diagram of the robot (including all sensors)
   2. A description of what the robot does
   3. Whether the robot is stationary or mobile
   4. A link to a video clip of the robot in action

In this case, you might like to consider the Curiosity rover currently exploring Mars.