**Activity 2.5:**

**Reflect on the use of A.I. and Quantum computing with Robotics.**

**In no more than 250 words, reflect on the use of A.I and Quantum computing with Robotics.**

**Answer:**

**Artificial intelligence:**

Artificial intelligence (AI) is an area of computer science that develops machines that can solve problems and learn in the same way that people do. Machine learning and reinforcement learning are two of the most cutting-edge AIs used.

**Quantum Computing:**

A quantum computer is a type of computer that uses quantum mechanics so that it can perform certain kinds of computation more efficiently than a regular computer can.

**Robotics:**

Robotics is a discipline of engineering/technology concerned with the design and operation of robots. Robots are programmable robots that can perform tasks autonomously or semi-autonomously. Robots are capable of movement and employ sensors to interact with the physical world, but they must be programmed to complete a task.

Artificial Intelligence and Quantum Computing both can integrate with a variety of processes and increase their efficiency and value.

**Use of Artificial Intelligence in Robotics:**

Artificial intelligence is used at some level in nearly every business, from finance to manufacturing, healthcare to consumer goods, and so on. Many of us utilize artificial intelligence daily, such as Google's search algorithm and Facebook's recommendation engine.

But now the scenarios are different, AI is getting integrated into robots to develop the advanced level of robotics that can perform multiple tasks and learn new things with a better perception of the environment.

**Application of Quantum Computing in Robotics:**

While everyone is still digesting the fact that robots with the integration of AI can be intelligent, quantum computing has also approached robotics to discover some new nuances.

However, across the robotics field, the following are the significant applications of quantum computing.

**Sense: Perception, Vision, and Sensor Data Processing**

**Think: Traditional Artificial Intelligence in Robotics**

**Act: Kinematics and Dynamics**

**Observe: Diagnosis and Data Mining**