Introduction To Robotics – Assignment 2

1.What is the definition of a robot? Is a type of automated machine that can execute specific tasks with little or no human intervention and with speed and precision.

2. What are the three main components of a robot?

Manipulators

End of effectors

Feedback devices

3.What are the main types of robots based on their application?

Industrial robots

Domestic robots

Surgical robots

Commercial entertainment

Robonauts

Army robots

Service robots

4. Give 3 Examples of sensors that helps a robot understand it environment.

Light sensor: a light sensor detects light and creates a difference in voltage. A robot’s vision system has a computer-controlled camera that allows the robot to see and adjust its movement accordingly.

Sound sensor: are generally a microphone used to detect the equivalent voltage of sound and return. The sound it receives can be navigated by a simple robot.

Proximity sensor: the nearby object can be detected by a proximity sensor without physical contact. The transmitter transmits electromagnetic radiation in the adjacent sensor and receives and analyzes the interruption feedback signal.