**CHAPTER 2**

**LITERATURE REVIEW**

**2.1. Robotic Arm**

A robotic arm is a type of mechanical arm, usually programmable, with similar functions to a human arm. With the rise in manufacturing industrial activities, a robotic arm is invented to help various industries to perform a task or work instead of using manpower. Industrial robotic arms are designed to do exactly the same thing, in a controlled environment, over and over again. For example, a robot might twist the caps onto peanut butter jars coming down an assembly line. To teach a robotic arm how to do is job, the programmer guides the arm through the motions using a handled controller. The robotic arm stores the exact sequence of movements in is memory, and does it again and again every time a new unit comes down the assembly line. The light material lifting task can be de done by robotic arm efficiently and time saving because it is restricted by fatigue or health ricks which man might experience. It handle tasks that are difficult, dangerous or boring to human beings.

The robotic arm which is usually made up of seven metal segments, joined by six joints. The computer controls the robot by rotating individual step motors connected to each joint. The links of such a manipulator are connected by joints allowing either rotational motion or translational displacement. The links of the manipulator can be considered to form a kinematic chain. The terminus of the kinematic chain of the manipulator is called the end effector and it is analogous to the human hand. The end effector or robotic arm can be designed to perform any desired tasks such as welding, drilling and spraying etc.

The robotic arm can be autonomous or controlled manually and can be used to perform a variety of tasks with great accuracy. Robotic arm can do a lot of work more efficiently than human beings because they are so precise. The robotic arm can be fixed or mobile and can be designed for industrial or home application. The wireless mobile robotic arm also have been developing in previous year.