Agricultural Robot

Abstract

The idea of applying robotics technology in agriculture is very new. In agriculture, the opportunities for robot enhanced productivity are immense - and the robots are appearing on farms in various guises and increasing numbers. We can expect the robots performing agricultural operations autonomously such as seed sowing, mud closing, water, and pesticide sprinkling, Cutting. It allows farmers to reduce the environmental impact, increase precision and efficiency, and manage individual plants in novel ways.

The applications of instrumental robotics are spreading every day to cover further domains, as the opportunity of replacing human operators provides effective solutions with return on investment. This is specifically important when the duties, that need be performed, are potentially harmful for the safety or the health of the workers, or when more conservative issues are granted by robotics. Heavy chemicals or drugs dispensers, manure or fertilizer spreaders, etc. are activities more and more concerned by the deployment of unmanned options.

In our India most of the 60% populations depend on the agriculture.It is the primary sector in India. In agriculture, farmers need different tools for cutting the grass, digging the soil, seeding, leveling the soil, sprinkling fertilizers and water. To perform those operations it takes a lot of time and it needs high labor. To overcome this we are using multipurpose agriculture robots. By using this we can save a lot of time. The different operations can perform by using this single robot. We can save labor costs also. By giving the commands through Mobile using app it will works.

The Soil moisture senses the level of moisture in soil and sends it to the arduino. According to predefined soil moisture levels the water pump motor may ON/OFF automatically. At the same way arduino controller controls the agriculture robot, Robotic Arm for digging and closing the mud, Water and Pesticide sprinkling.

KeyWords: Arduino Uno, Water & Pesticide Sprinkler, Soil Moisture Sensor, Robotic arm