AUTOMATIC PLANT WATERING SYSTEM

Abstract

Whenever farmer go out of town for few days, farmer always used to worry about our plants as they need water on regular basis. So here we are making Automatic Plant Irrigation System using Arduino, which automatically provides water to your plants and keep you updated by sending message to your cell phone.

In this Plant Watering system, soil moisture sensor senses the moisture level of the soil. if soil will get dry then sensor senses low moisture level and automatically switches on the water pump to supply water to the plant. Water pump as plant get sufficient water and soil get wet then sensor senses enough moisture in soil. Whenever system switched on or off the pump, a message is sent to the user via GSM module, updating the status of water pump and soil moisture. This system is very useful in Farms, gardens, home etc. this system is completely automated and there is no need for any human intervention

We have used a self-made water pump in this system using 5 volt DC motor. I could use 12 volt water pump in the system but to operate this, it will require a relay module. So, to reduce all these hardware complexity, I made DC motor based water pump using diode, transistor and registers combined circuit which operates DC motor according to the our Arduino code.