From past to present, different methods have been used for agricultural irrigation systems. Among these, drip irrigation system is more efficient than the others. In drip irrigation system, wireless sensor network is proposed to provide optimized water supply. On the other hand, zigbee has been recently used for remote irrigation systems. In irrigation system, majority of electrical energy is consumed by the pump motors. Therefore, electricity derived from solar energy is important for the economy of our country for the evaluation of cultivated land in settlements where there are no electricity transmission and distribution and far from the city center. In this study, remote controlled and solar powered based drip irrigation system with using wireless sensor network is carried out. In the system, there are two dripping system line and each dripping system line has a sensor and a valve module. These modules and system are controlled by a main module. Moreover, energy of these modules are provided by solar panels and they are communicated with each other via wireless sensor network. The control of the drip irrigation system is provided by the Android interface. Also, the system can be controlled manually or automatically with android interface via SMS.