SMART DRIP IRRIGATION SYSTEM

The system consists of a motor water pump,water reservoir connected to pipe which drips water directly to the plants, an Arduino uno R3, and sensors like moisture sensor dipped to the soil.

The Arduino R3 is connected to the motor, to the sensors and to the reservoir as well. The Arduino is programmed such that the motor gets running automatically according to the values determined by the moisture sensor(analog): for eg a value of 800-1023 would let the Arduino code to run the motor for a longer duration as compared to the value of say, 500 or 300 which tells the Arduino that the soil is comparatively more wet and, to run the motor for a shorter duration. Accordingly, the irrigation pipe should get filled more in the first case and lesser in the second case. The water reservoir is also fitted with a sensor which senses the water level and sends data to the Arduino which then compares it against a pre-set certain cutoff water level and then runs the motor to fill the reservoir. It is to be noted that that the irrigation pipe has one side sealed so as the water is filled and drips to the individual plants, also to reduce the wastage of water from the other end.