

AUTOMATED PLANT WATERING AND WATER LEVEL CONTROL FOR IRRIGATION SYSTEM USING ARDUINO

Required Modules, Parts and Components

NO	COMPONENTS	QUANTITY (PCS)	ESTIMATED PRICE	REAL PRICE	INQUIRY
1	Arduino UNO	01	850 birr		
2	16x2 LCD Display (with header)	01	200 birr		
3	Soil Moisture Sensor	01	150 birr		
4	Water Level Sensor	01	150 birr		
5	5V Relay Module 2 -Channel	01	250 birr		
6	12V DC Brushless Water Pump Submersible	01	500 birr		
7	12V Electric Solenoid Valve	01	500 birr		
8	Transparent Plastic Tube Hose	2 Meter	40 birr		
9	Piezo Buzzer	01	100 birr		
10	LED Green(1), Yellow(1) Red(1),	03	3*3 birr		
10	POT/Variable Resistor (10k)	01	30 birr		
12	PVC foam board plastic flat sheet	04	4*200 birr		
13	Glue Gun sticks	02	2*20 birr		
14	LM 2577 DC to DC Auto boost buck Convertor 1.25v-30v	01	350 birr		
15	Stepdown Transformer /12v output	01	150 birr		
16	Bridge Rectifier	01	35birr		
17	Electrolytic Capacitors 2200uf/25v, 1000uf/25V, 470uf/16V	03	3*5 birr		
18	Resistor 100 ohm	03	4*3 birr		
19	Regulator LM7812 & LM7805	02	2*10 birr		
20	65 Jumper Wire. (22M-M,21F-F, 22F-M)	1 Pack	160 birr		
21	PCB Strip Board (Dot type)	01	80 birr		
22	SPST with Red Light Indicator On OFF Boat Rocker Switch	01	15 birr		
23	2 Pin Terminal Connector	02	15 birr		
24	2 Litter Water Bottle or Highland	02	30 birr		
25	Rectangular Plastic Food Container(For Plant Demonstration)	01	--		
Estimated Total			<u>4501 birr</u>		

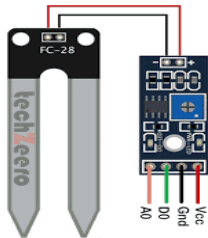
1. Arduino UNO



2. 16x2 LCD Display with header



3. Soil Moisture Sensor



4. Water Level Sensor



5. 5V Relay Module 2 -Channel



6. 12V DC Brushless Water Pump Submersible



7. 12V Electric Solenoid Valve



8. Transparent Plastic Tube Hose



9. Piezo Buzzer



10. LED Green(1), Yellow(1) Red(1),



11. POT/Variable Resistor (100k)



12. PVC foam board plastic flat sheet /For Modeling



13. Glue gun Stick



14. DC to DC Auto boost buck Converter 1.25v-30v



15. Stepdown Transformer /12v output



16. Bridge rectifier



17. Electrolytic Capacitors 2200uf/25v, 1000uf/25V, 470uf/16V

2200uf/25v



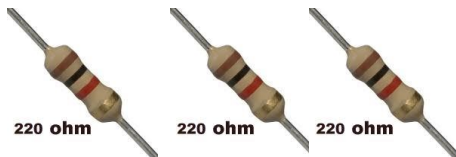
1000uf/25V,



470uf/16V



18. Resistor 100ohm

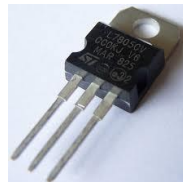


19. Regulator LM7812 & LM7805

LM7812



LM7805



20. 65 Jumper Wire. (22M-M,21F-F, 22F-M)



21. PCB Strip Board



22. SPST Switch



23. 2 pin terminal connector



24. 2 Litter Water Bottle or Highland



25. Rectangular Plastic Food Container(For Plant Demonstration

