



Document History

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Table of Contents

Chapter No	Title	Page No
1.	Requirements and Analysis i. Empathize & research ii. High-Level Requirement iii. Low-Level Requirement iv. SWOT Analysis v. 5W 1H	2
2.	Design i. Block Diagram ii. Structural diagram iii. Behavioral Diagram	3
3.	Implement	
4.	Evaluation i. Unit Testing	4
8	Summary	

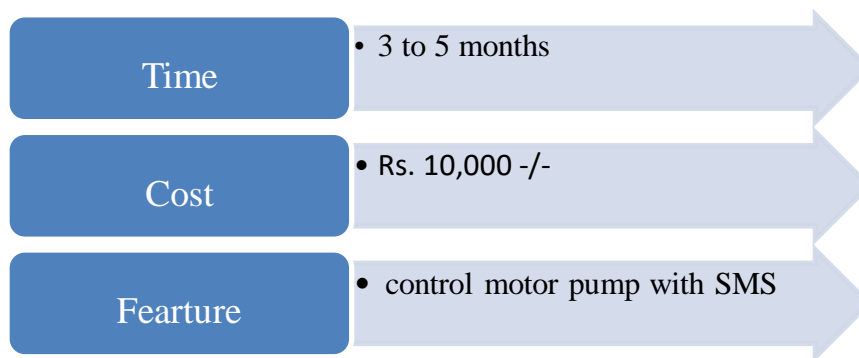
Case Study of Single-Phase Mobile Starter

1. Requirements:

i. Empathize Research:

In this Project, Mobile Starter is provided to monitor and control the status of agriculture motor pumps at anytime from anywhere motor can on/off through SMS. So, farmers take full control without visiting the agriculture field.

Analysis:



ii. High-Level Requirement:

ID	Description
HR01	Motor Pump turn on
HR02	Motor Pump turn off
HR03	Check the status of Motor Pump

iii. Low-Level Requirement:

ID	Description	Datasheet
LR01	1 channel 30A Relay	link
LR02	AVR ATmega328	link
LR03	SIM800A Quad-Band GSM	link
LR04	Single-phase Motor Pump	link

iv. SWOT Analysis:
Strengths :

1. Portable to control motor
2. Check the status of the motor
3. Easy to turn ON and Turn OFF
4. It useful for farmers

weaknesses :

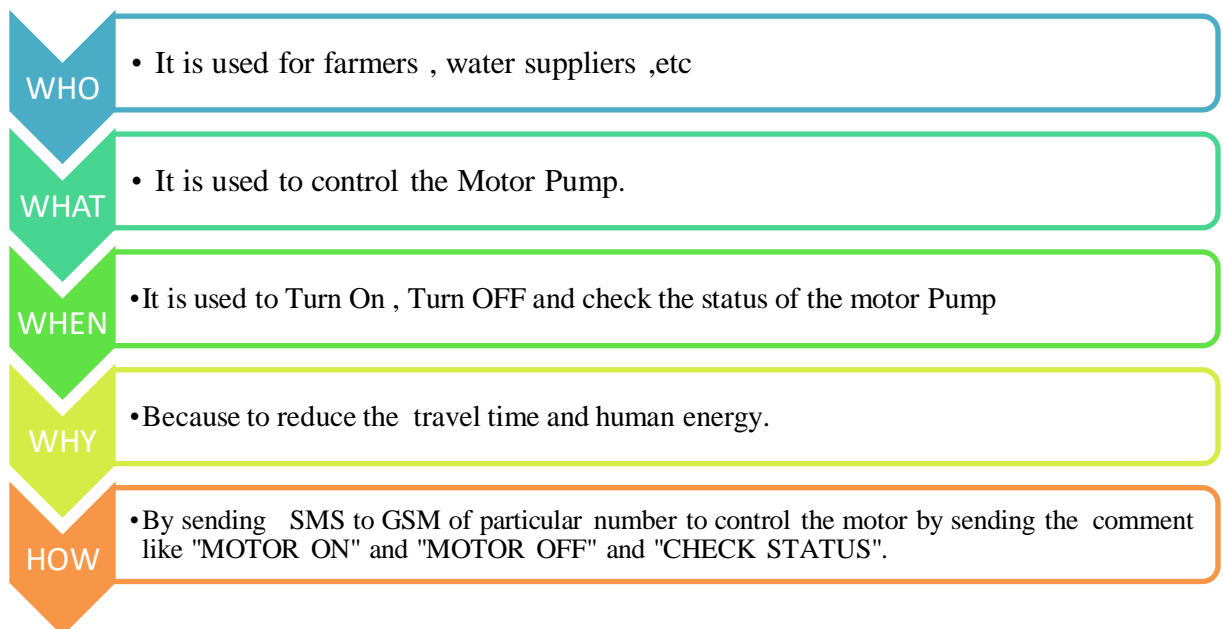
1. data package required
2. signal problem

Opportunities :

1. agriculture product
2. water tank filling

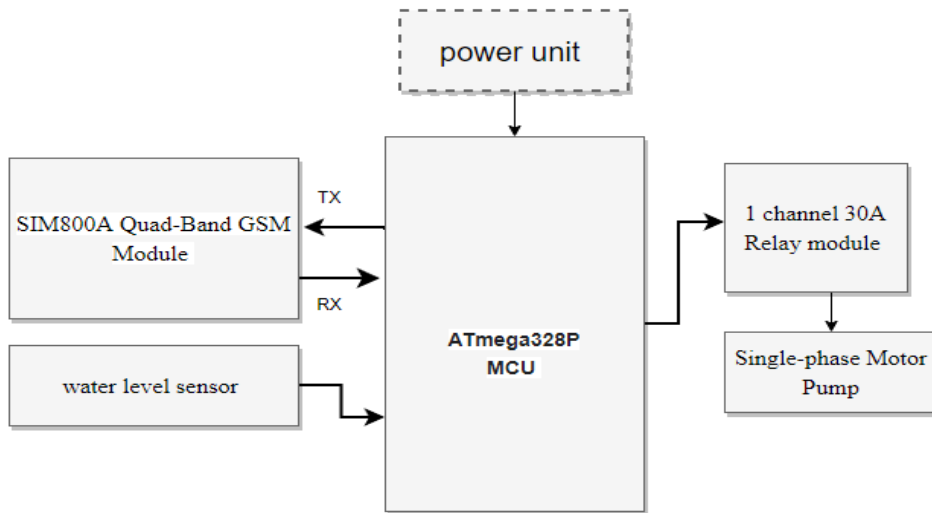
Threats:

1. minimum range of a Requirement
2. tough competition
3. slow stock clearance sale

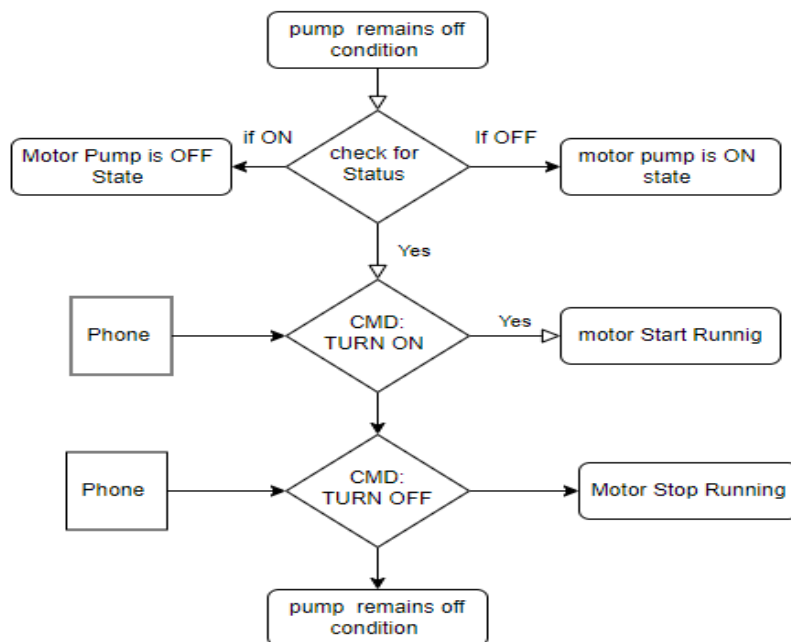
v. 4W 1H:


2. Design:

i. Block Diagrams:



ii. Structural Diagram:



3. Evaluation

i. Unit Testing:

Test case	Expected output	Actual output
GSM module for Turn On	Motor ON	Motor ON
Water level sensor	1	1
Relay Module	0	0 (Turn ON)

4. Summary:

Agriculture is one of the key enablers for the economic development of India that accounts for one third of nation's income. Based on this study work the controlling in this Project is Mobile Starter provided to control and monitor the status of the agriculture motors for any time any place. motor on/off through SMS so the farmer takes the full control in his hands. A GSM based remote control system which has been specially designed to address the practical problems of Indian agriculture. With this the farmer can operate his motor pump anytime and from anywhere in the world. He can know the status of the pump and can get the information of the pump site on his phone. With Influx MPS,

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- [2] Biswarup Nandi, Soumi Mondal, Kuntal Ghosh, Rana Biswas, GSM Based Pump Automation, International Journal of Advanced Research in Computer Science and Software Engineering, 2015, Vol. 5, Iss. 9, 446-452.