

## **SMART CLOTH STAND**

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### **Abstract**

Now a days as we know the climate had become an issue especially in drying clothes so the aim of our project is to protect the clothes from rain. As we know protecting clothes from rain had become an issue for bachelors and working women mainly. So particularly our project follows the aim to protect clothes from rain especially for people who need it. In any chance people don't miss there own clothes protection from the rain. This also manages there time and worries about the clothes. This mostly helps the people who live in apartments.

### **1. INTRODUCTION**

In a very simple and traditional way to save clothes from rain is by using smart cloth stand. People now-a-days are too busy with their works until not have enough time to take care of their own clothes. Whenever everyone talk about time, it's always full of works. So, with this portable smart cloth stand project, it might save our busy time. Coding is used to run and set a command for this project independently and automatically based on the attached sensor system.

### **2. RELATED WORK**

By providing the solution to the smart cloth stand we would like to save clothes from rain.

- By this we can save clothes from getting wet.

- Identically we are also saving our precious time by using this smart cloth stand.
- It benefits most of the people who are bachelors or the women who lives in apartments.

### **3. IMPLEMENTATION**

Mostly for the working women an bachelors who faces issues of drying clothes this smart stand helps them a lot from protecting rain and breeze.

The project seeks to follow the following steps:

- Connect Arduino uno with PCB board gear motor using jumper wires and also connect rain sensor
- Arranging the connections on cardboard
- Prepare a stand using PBC pipes and attach the connections

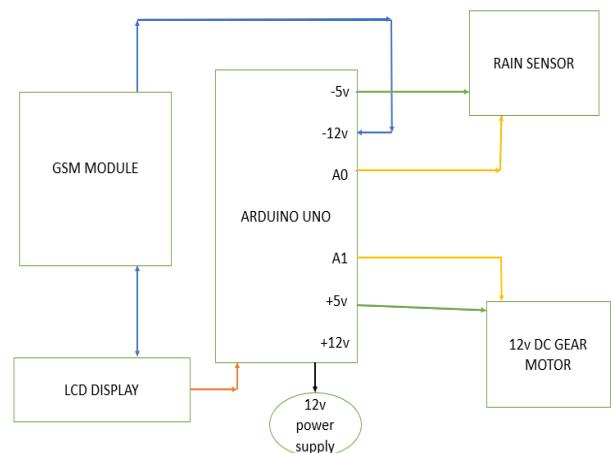
- After completion of connections add cover to it so that it can cover the stand.

**List Of Components**

- 12v dc gear motor
- Rain sensor
- Arduino uno
- GSM module sim800L
- GSM modem module board
- Lcd display
- Jumper wires

First all the components are connected to a PCB board in order to give the power supply to all of them using jumper wires. A sim is inserted into the gsm module to get the notifications to the mobile and to control the motor in the form of sending message. Now a rain sensor is kept on the top of the stand, when the rain falls it detects and sends the notification to mobile as raining. Then we need to give the message called 'data:1111' in order to get the motor started and starts pulling the cover immediately which covers round the stand from clothes getting wet. Once the stand is covered then by sending another message called 'data:0000' the motor gets turned off. And all these actions are displayed on the lcd display for clear understanding of the process included in the mechanism. If the weather gets bad, we need to dry our clothes by hanging themindoors. The pros of

hanging clothes indoor is that we can maintain the quality of the clothing and avoid rewashing them in case if it's raining and we were not alert with the weather. But the catch to hanging clothes indoor is that it will produce unpleasant smell. Those unpleasant smell produced are actually pollens that is spreading in the air. The clothes absorb the pollens and causes the spring allergies to worsen. Spring allergies means sneezing, congestion, runny nose and other bothersome symptoms that could lead to health problems, so our project SMART CLOTH STAND will save clothes from getting wet even if it is raining.

**4. EXPERIMENTAL RESULTS**

In this project include design and construction of an Arduino based connections. First all the components are connected to a PCB board in order to give the power supply to all of them using jumper wires. A sim is inserted into the gsm module to get the notifications to the mobile

and to control the motor in the form of sending message. Now a rain sensor is kept on the top of the stand, when the rain falls it detects and sends the notification to mobile as raining. Then we need to give the message called 'data:1111' in order to get the motor started and starts pulling the cover immediately which covers round the stand from clothes getting wet. Once the stand is covered then by sending another message called 'data:0000' the motor gets turned off. Also all these actions are displayed on the lcd display for clear understanding of the process included in the mechanism.



## **Prototype**

### **5. CONCLUSION**

In conclusion, the objectives of this project which is to protect the clothes from rain and breeze. Even though this portable smart

cloth stand project is only able to hold one piece of clothes, in the future it might be able to hold more than one and might available in smaller size and light than this type of model.

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