



# **Automatic Retractable Clothesline System**

*Electro Mavericks*

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## PROBLEM

Cloth is a necessity for covering and protecting our bodies from external elements. Clothes play an essential role in our lives, and we rely on them daily. However, when it comes to washing and drying clothes, people face several challenges. One significant issue is the risk of rain damage during the air-drying process. Even when clothes are hung up to dry indoors, sudden rainfall can cause water damage and require rewashing, which is a waste of water and energy. This can be a particular problem in areas with frequent rainfall or limited space for indoor drying. Additionally, manually retracting a clothesline during rain can be time-consuming and inconvenient. These issues highlight the need for a solution that allows individuals to efficiently dry their clothes without worrying about rain damage or the hassle of manual retracting.

## REASONING

Protecting clothes from rain during air drying is a crucial challenge. In order to address this challenge, an automated rain-protecting clothesline with rain sensors can provide an efficient solution. These sensors can detect rain and automatically retract the clothesline, preventing clothes from getting wet and potentially damaged. Sunlight can be used to help in automatic clothes drying and using a web system clothesline will automatically retract according to the detected climate changes. The rain sensor will activate, and the motor can work then the fabric will enter the room to avoid the rain. It will prevent damaging clothes due to rain and inconvenient manual retracting. Besides this will be a better solution for indoor clothes drying which causes home moisture.

## SOLUTION

We proposed using a Retractable clothesline system to avoid clothes getting damaged by rain. Rain sensors detect the raindrops and start retracting to an indoor place and when there is no rain again the clothesline moves outdoor to dry. Besides, we want to add a manual system to retract the clothesline if necessary. Furthermore, we are planning to launch a mobile app which informs the customer about the current situation.