

Requirements for an in-window rain monitor.

- The monitor **should** be able to fit in an open window.
- The monitor **should** be able to be moved from one window to another.
- The monitor must be able to withstand getting wet from rain.
- The monitor must/**should** be able to detect when rain is falling on it,
- The monitor must be able to audibly alert the user when rain is detected.
- There must be a method to turn off the alert once it has been activated.

- The monitor should detect temperature.
- It **should** be able to detect humidity
- The monitor should display the detected temperature.
- The user should be able to manually program a desired temperature range.
- The monitor should be able to sound the audible alert when the detected temperature is outside the designated range.
- **Should** be able to run of battery power

- The monitor may include the capability of closing the window it is in.
- The monitor may have the capability to be programmed remotely.
- The monitor may have the capability to send alerts to the user's cell phone.
- The monitor **may** have the capability to check weather status online.
- **May** have a rechargeable battery

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- Must have speaker (piezo)
 - Must have push buttons to disable alarm
 - Must have rain sensor (Im393)
 - Should have humidity and temperature sensor (dht11)
 - Should have LED/LCD display to show weather condition
 - May have stepper motor to 'move' window
 - May use wifi/bluetooth module of ESP32