

Mobile Weather Station

Maintenance Sheet

IWMI

The mobile weather station has 4 major groups of components:

- 1 – The power supply: solar panel, charger and battery
- 2 – The external structure: maybe some steel work (depending on your installation)
- 3 – The external sensors: wind speed, wind direction, rain gauge (depending on your installation)
- 4 – The electronics: a minimum set of 2 units (Arduino + weather shield)

Maintenance

1 – The power supply: solar panel, charger and battery

The easiest is to contact the local electrician, once the voltage is tested at the battery and the solar panel, the defaulting element is isolated. Local electricians have access to solar panels, solar chargers and batteries. Additionally, any motorbike workshop should have a battery or two.

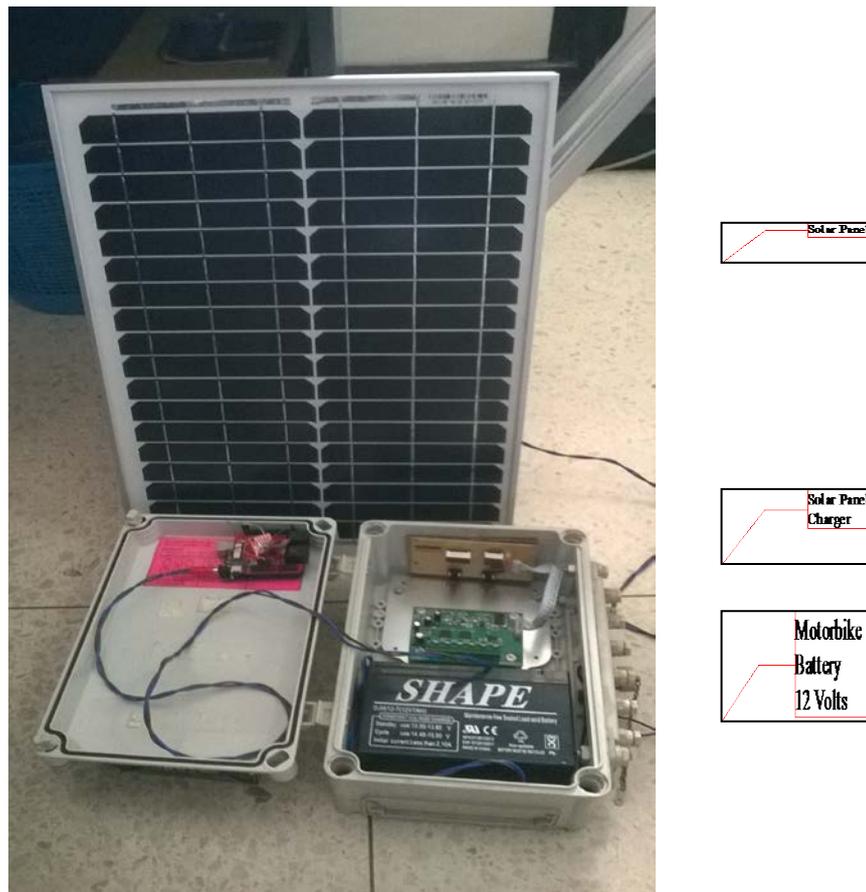


Figure 1: Power supply

2 – The external structure: maybe some steel work (depending on your installation)

If you have not set up the weather station on top of a roof, you most likely made a steel structure to support it. Maintenance of the steel structure goes to the builder, most probably the local blacksmith. He would have provided you, on delivery, with basic steel care information. If major steel work needs to be done, please contact the builder.



Figure 2: Local steel work example

3 – The external sensors: wind speed, wind direction, rain gauge (depending on your installation)

Initial versions of the station had the following sensors kit. If the information received is doubtful, make sure that the cables are well connected, if need be, remove and re-insert the cables. There may be some leaves obstructing the rain collecting area of the rain gauge, they have to be removed for proper operation. The internal circuit board of the rain gauge is very sensitive to human contact and may not work properly if opened. Any malfunction should be reported to the local supplier, for warrantee, repair or replacement.



Figure 3: external sensors

4 – The electronics: a minimum set of 2 units (Arduino + weather shield)

The electronic should, at all time be available in double, one working set and a spare one in case of any issue. If an issue arises, first replace the electronics by the spare one, this will continue the recording with less damage. Then contact the local provider of this electronics to arrange a diagnostic or a direct free replacement (if under maintenance contract).



Figure 4: Arduino alone (Left), built with SMS and red weather shields (right)

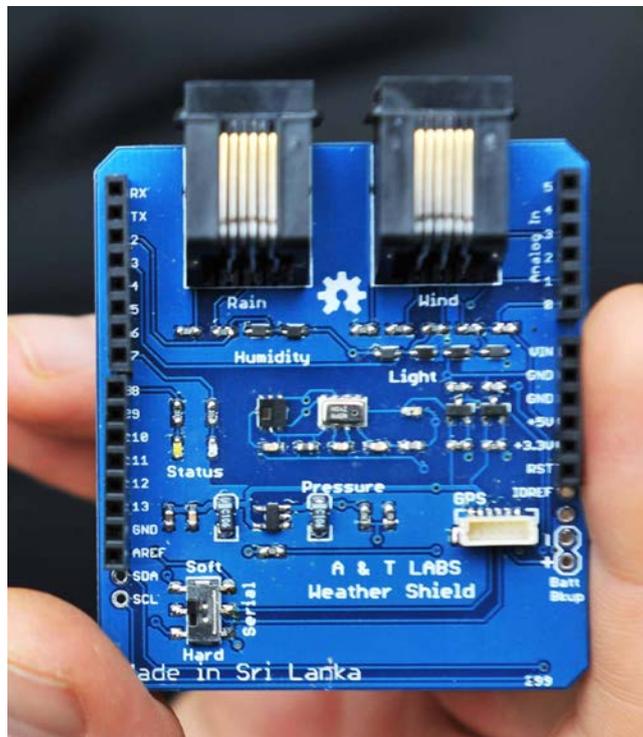


Figure 5: Blue weather shield