1. **Outdoor Deployment**

The *Arduino Version* of the *Sensor Node* is assembled on a vulnerable solderless breadboard. Outdoor applications require the breadboard to be safe and weatherproof.

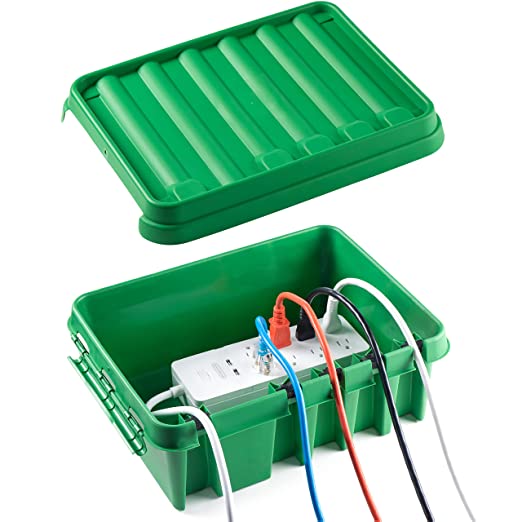


Figure 11. Waterproof Case.

A picture containing basket, container, red, orange

Description automatically generated

Figure 12. Waterproof Case.

A Nanuk 903 Waterproof Case and a Green Case were used to house the Node. Both cases are contain ports to allow power cords to run in/out of the case.

A picture containing electronics, cellphone, black, image

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Figure 13. Voltaic Battery

A picture containing appliance, air conditioner

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Figure 14. Voltaic Solar Panel

A picture containing text, container, bin, sign

Description automatically generated

Figure 15. CO2 Sensor Housing Unit.

A picture containing person, wall, indoor

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Figure 16. Housing Unit attached to the Anemometer.

A picture containing text, tree, outdoor, sign

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Figure 17. Sensor Node Deployed in an Outdoor Setting.

It is preferable that the *Sensor Node* is powered by a continuous power supply, such as an on-grid outlet. However, if deployed in remote areas, the Node must be powered via solar energy. A company called *Voltaic*

* Waterproof Case
* Solar Battery
* Solar Panel
* Housing Unit
* Calculations