# Monitoring Station Configurations

The monitoring station toolkit would include the following packaging options.

The PI stations would include VDAB and would be capable of serving as a Hub for other stations in the vicinity.

The standalone Mayfly station would include sketch components making it easy to communicate with VDAB running on the Hubs.

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|  | Integrated Mayfly/Pi Station/Hub | Standalone PI Station/Hub | Standalone Mayfly station |
| Station Size | * Station size 6”x6”x3” | * Station size 4”x4”x2” | * Station size 3”x3”x2” |
| Power Consumption | * Moderate | * Moderate | * Low – Very Low |
| Battery | * Rechargeable Large | * Rechargeable Moderate | * Disposable * Rechargeable Small |
| Solar Power | * 12x12 panel | * 6x6 panel | * 3x3 panel |
| Uplink Radio | * Lora Wan * 4 G LTE | * Lora Wan * 4 G LTE | * Lora Wan * 4 G LTE * WiFi (requires hub) * ZigBee (requires hub) |
| Downlink Radio (as Hub) | * Lora Wan * WiFi * Zigbee * ZWave | * Lora Wan * WiFi * Zigbee * ZWave | **NA** |
| Link Protocol | * VDAB * MQTT * HTTP | * VDAB * MQTT * HTTP | * MQTT * HTTP |
| Software | * VDAB | * VDAB | * C Sketch |
| Acquisittion channel | * 4 Analog * IC2 | * 4 Analog * IC2 | * 4 Analog * IC2??? |
| Optional  Features | * Fluid Control * Serial Control * Mechanicals Control | * Fluid Control * Serial Control * Mechanicals Control |  |
|  |  |  |  |

# Small PI based monitoring station.

Create something similar to WaspMote based on Pi hardware.

Things needed..

* Input for up to 4 electrode
* node to calculate result from voltage.
* Different radio types.
* 3D printing of a waterproof case?

