# Seeeduino Stalker

**Seeeduino Stalker** is a feature rich Arduino compatible **Wireless Sensor Network node** with **Data logger functionality**. It's modular structure and onboard peripherals makes it convenient to log time stamped sensor data on a periodic basis. **Seeeduino Stalker** comes with a *Temperature sensor, RTC with backup power, SD Card Socket, Bee Socket and Solar LiPoimer Ion Battery Charger*. The **Seeeduino Stalker** is a good candidate for all your tracking, monitoring and control projects.

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**Please note that the current (and also the latest) version of is Seeeduino Stalker v2.2**
Clicking on the images below will take you to the documentation for the corresponding version.

Seeeduino Stalker v1.0
(ATmega328P/168P)
now discontinued

Seeeduino Stalker v2.0
(ATmega328P)

Seeeduino Stalker v2.1
(ATmega328P)

Seeeduino Stalker v2.2
(ATmega328P)

## Comparison between various versions of Seeeduino Stalker

| Parameter | v1.0 | v2.0 | v2.1 | v2.2 | Remarks |
|---|---|---|---|---|---|
| **Product Release Date** | **23rd Dec 2009** | **17th Dec 2010** | **3rd Oct 2011** | **29th Dec 2011** | |
| **Production Status** | **Discontinued** | **Discontinued** | **Discontinued** | **In Production** | |
| **User LED & Switch** | | | | | |
| User LED | PB5 (Arduino Pin 13) | PB0 (Arduino Pin 8) | PB0 (Arduino Pin 8) | PB0 (Arduino Pin 8) | |
| User Switch | PB4 (Arduino Pin 12) | Not Present | Not Present | Not Present | |
| **Arduino Compatibility** | | | | | |
| Physically compatible with Arduino pinout | Yes | Yes | Yes | Yes | Compatible with Diecimila/Duemilanove/UNO |
| Software compatible with Arduino | Yes | Yes | Yes | Yes | Bootloader preloaded |
| Atmega168 variant Available | Yes | No | No | No | |
| Atmega328 variant Available | No | Yes | Yes | Yes | |
| AVRISP 6 Pin header | Yes | Yes | Yes | Yes | |

| | | | | | |
|---|---|---|---|---|---|
| present | | | | | |
| FT232RL & USB Connector Present | No | No | No | No | In both version "UartSBee V3.1" or **V4.0** must be brought seperately and used for program downloading using Arduino IDE. A connector to mate to UartSBee is present on both versions. Microcontroller reset will automatically be controlled by DTR. **In v2.1 the programming connector arrangement is different from previous versions.** |
| Standalone Operation | Yes | Yes | Yes | Yes | |
| Operation as a shield for Arduino/Seeeduino | Yes | No | No | No | |
| Can be stacked further in shield mode? | Yes | N.A. | N.A. | N.A. | Using $I^2C$ Interface |
| **Real Time Clock** | | | | | |
| Chip | DS1307 | RX8025 | DS3231 | DS3231 | |
| Onboard backup power source | CR2032 Coin Cell | Super Capacitor | CR2032 Coin Cell | CR2032 Coin Cell | |
| Interface | $I^2C$ | $I^2C$ | $I^2C$ | $I^2C$ | |
| **$I^2C$ Interface** | | | | | |
| Connector for direct connection to PC4 and PC5 (ie SCL and SDA) of the microcontroller | Yes | Yes | Yes | Yes | |
| Onboard level translation for connecting to 5.0 volt devices while microcontroller operates in 3.3v mode | Yes (using PCA9306) | Yes (using N channel enhancement MOSFET) | Yes (using N channel enhancement MOSFET) | Yes (using N channel enhancement MOSFET) | |
| **Power Supply** | | | | | |
| From DC Supply | Yes (5-12V DC) | Yes (connect to Solar Cell Connector, but apply 5.0 Volts only) | Yes (connect to Solar Cell Connector, but apply 5.0 Volts only) | Yes (connect to Solar Cell Connector, but apply 5.0 Volts only) | |
| From USB | Yes (when used with UartSBee V3.1) | Yes (when used with UartSBee V3.1) | Yes (when used with UartSBee V4.0 or FTDI Cable) | Yes (when used with UartSBee V4.0 or FTDI Cable) | |
| From Solar Panel | No | Yes (Seperate Connector Present) | Yes (Seperate Connector Present) | Yes (Seperate Connector Present) | |
| From Lithium Polymer Battery | No | Yes (Seperate Connector Present) | Yes (Seperate Connector Present) | | |
| Battery voltage measurement | No | Yes (Jumper for connecting to ADC7) | Yes (Jumper for connecting to ADC7) | Yes (Jumper for connecting to ADC7) | |
| Battery Charging? | No | Yes (Through solar cell, | Yes (Through solar cell, | Yes (Through solar cell, | |

| | | | | | |
|---|---|---|---|---|---|
| | | Managed by CN3063 Chip) | Managed by CN3063 Chip) | Managed by CN3063 Chip) | |
| Battery Charging Status Read? | No | Yes (Digital Pin 6&7) | Yes (Digital Pin 6&7) | Yes (ADC6) | |