

# Sunflower Solar Power Manager

DFR0559

## Product Overview

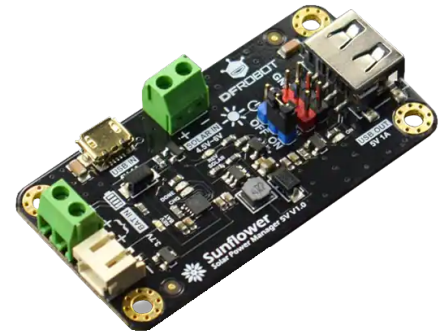
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## Description

DFRobot Sunflower Solar Power Manager 5V is a small power and high-efficiency solar power management module designed for 5V solar panels. This module is used for the Internet of Things (IoT) and renewable energy projects.

The solar power manager provides up to 900mA charging current to a 3.7V Li battery with a USB charger or solar panel. This module features all-around protection functions, a USB connector with an ESD shell, and a double charging mode. The solar power manager is used in smart solar environment monitor systems, solar-powered robots, small solar street lamps, and solar power banks.



## Features

- Constant voltage Maximum Power Point Tracking (MPPT) algorithm, maximizing solar panel efficiency
- Designed for 5V solar panel
- Double charging mode:
  - Solar
  - USB charger
- 5V ON/OFF controllable regulated power supply for low-power applications
- All-round protection functions
- USB connector with ESD shell

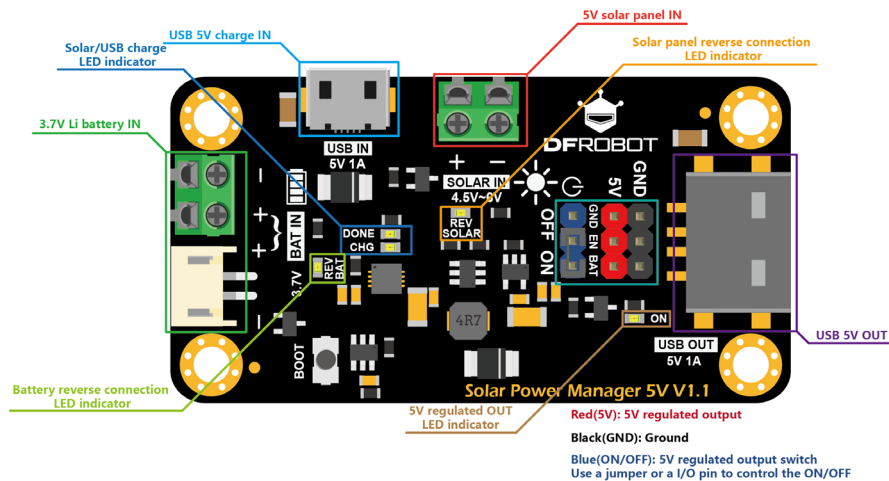
## Specifications

- CN3165 solar power management IC
- 4.5V to 6V solar input voltage
- 3.7V single-cell Li-polymer/Li-ion battery
- 900mA maximum trickle charging, constant current, and constant voltage three phases charging
- 4.2V $\pm$ 1% charging cutoff voltage
- 5V 1A regulated power supply
- <1mA Quiescent current
- -40°C to 85°C operating temperature range
- 33mm x 63mm dimensions

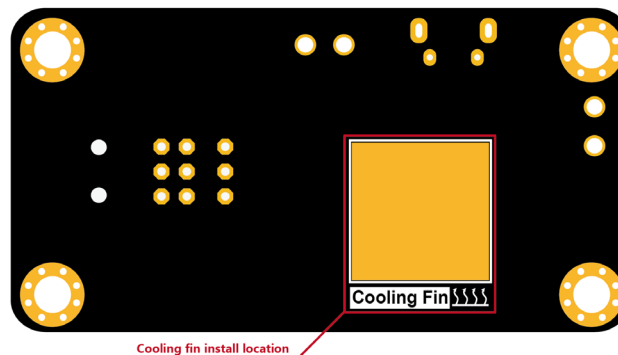
## Applications

- Smart solar environment monitor systems
- Solar-powered robots
- Small solar street lamps
- Solar power banks

## Board Overview



Front



Back

## Mouser Part Number

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