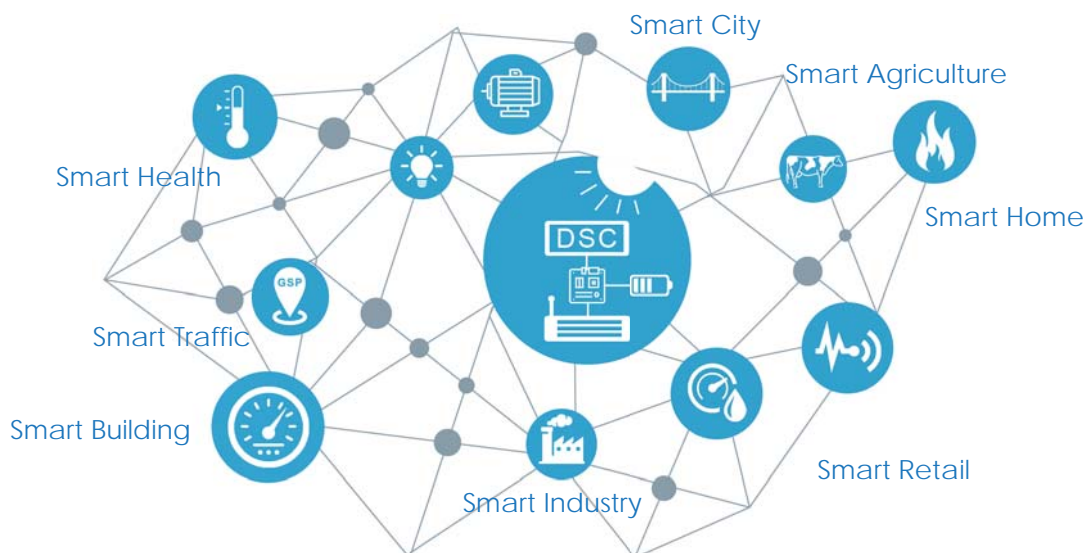# EHB-V11 *Energy Harvesting Board for DSC*
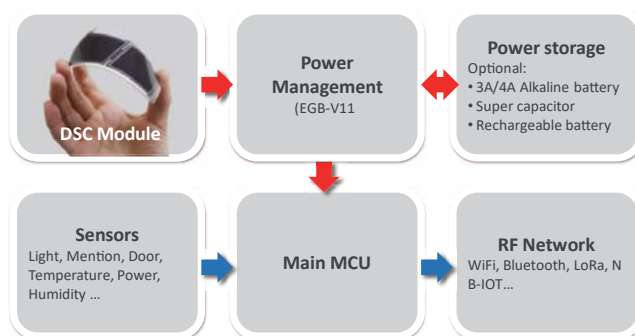
The IOT self-powered total solution

This is a Energy Harvesting Board specially designed for DSC. It's MPPT (Maximum power point tracking) function can efficiently manage the power generated by DSC. The output power is DC 3V/5V switchable and automatically switched over to CR2032 battery when the stored power is low.

Applications

- Smart City
- Smart Agriculture
- Smart Home
- Smart Retail
- Smart Industry
- Smart Building
- Smart Traffic
- Smart Health

Features

- Supports DSC 0.8V~5V
- Output power 3V/5V switchable
- Backup battery for battery low
- Charging condition indicator
- Supports MPPT
  (Maximum Power Point Tracking)

DSC Module	Power Management (EGB-V11)	Power storage

Power storage Optional:
- 3A/4A Alkaline battery
- Super capacitor
- Rechargeable battery

Sensors Light, Mention, Door, Temperature, Power, Humidity …

Main MCU

RF Network WiFi, Bluetooth, LoRa, N B-IOT…

Specifications

Items	EHB-SB	EHB-CB
Power input	DSC: 0.8V~5V	DSC: 0.8V~5V
Power storage Support	Super capacitor (5.5V)	Rechargeable battery (3.7V)
Power storage Fully charged	Over 5.3V	Over 4.3V
Power storage type switch (SW2)	1-ON 2-OFF	1-OFF 2-ON
Backup battery	CR2032	CR2032
Power output (CN6)	3V/5V	3V/5V
Power output switch (SW1)	Left: 5V, Right: 3V	Left: 5V, Right: 3V
Auto power source control cut point	Over 3.3V: Power storage Below 3.3V: Backup battery (JP1 short: Backup battery)	Over 2.7V: Power storage Below 2.7V: Backup battery (JP1 short: Backup battery)
Power storage charging condition indicator (LED1)	Fully charged (over 3.3V): LED blinking Charging (below 3.3V): LED off	Fully charged (over 2.7V): LED blinking Charging (below 2.7V): LED off
LED1 control (SW3)	LED1 control 1-ON/OFF 2-N/A	LED1 control 1-ON/OFF 2-N/A

Pin No.	CON1	CON2
1	DSC IN	Super Cap. OUT (3V/5V out)
2	Li-ion IN	CB_OUT+ (CR2032+ out only when power storage low)
3	Super Cap. IN	SB_OUT- (CR2032- out only when power storage low)
4	CR2032 IN	VBAT_OK (Fully charge=high)
5	GND	VSTOR (power storage out)
6		GND

Self-Powered by
TDP
Taiwan DSC PV