

Pinouts and Connection Maps

The Samraksh Company

samraksh.com

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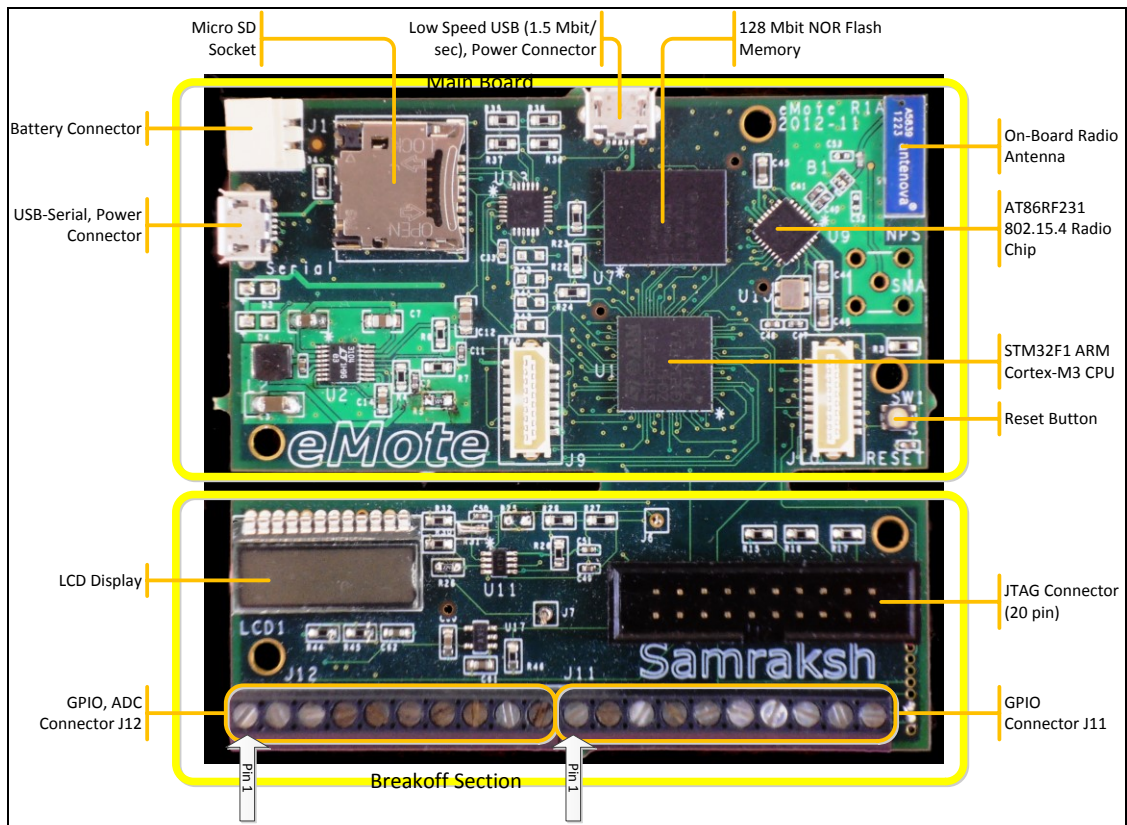
eMote .NOW 1.0 Pinouts & Components

The table shows the J11 and J12 connectors on the .NOW 1.0 and how to reference them in eMote. For example, in C# you can use the following to declare J12 pin 1 as a GPIO input port with an interrupt:

```
var inputPort = new InterruptPort(EmoteDotNow.Pins.GPIO_J12_PIN1, false,
    Port.ResistorMode.PullUp, Port.InterruptMode.InterruptEdgeBoth)
```

Pin	Type	Software Designations Namespace Samraksh.SPOT.Hardware	Remarks
Connector J11			
1	VOut*	NA	Board input power. - 5v if USB power - Else, actual battery voltage
2	+2V	NA	
3	GPIO	EmoteDotNow.Pins.GPIO_J11 PIN3	
4	GPIO	EmoteDotNow.Pins.GPIO_J11 PIN4	
5	GPIO	EmoteDotNow.Pins.GPIO_J11 PINS	
	COM2	Transmit	
6	GPIO	EmoteDotNow.Pins.GPIO_J11 PIN6	
	COM2	Receive	
7	GPIO	EmoteDotNow.Pins.GPIO_J11 PIN7	
8	GPIO	EmoteDotNow.Pins.GPIO_J11 PIN8	
9	GPIO	EmoteDotNow.Pins.GPIO_J11 PIN9	I2C pins are pulled high internally. GPIO pins are pulled high or low depending on program ResistorMode configuration.
	I2C SCL (clock)	NA	
10	GPIO	EmoteDotNow.Pins.GPIO_J11 PIN10	During power-up, if pins 9 and 10 are jumpered, .NOW will boot into TinyBooter instead of TinyCLR.
	I2C SDA (data)	NA	
Connector J12			
1	GPIO	EmoteDotNow.Pins.GPIO_J12 PIN1	
2	GPIO	EmoteDotNow.Pins.GPIO_J12 PIN2	
3	GPIO	EmoteDotNow.Pins.GPIO_J12 PIN3	
4	GPIO	EmoteDotNow.Pins.GPIO_J12 PIN4	
5	GPIO	EmoteDotNow.Pins.GPIO_J12 PIN5	
6	Reset	NA	Enable momentary connection to ground to cause .NOW reset.
7	VREF+ (2.0V)	NA	
8	GPIO	EmoteDotNow.Pins.GPIO_J12 PIN8	
	ADC	EmoteDotNow.ADCChannel.ADC_Channel1	
9	GPIO	EmoteDotNow.Pins.GPIO_J12 PIN9	
	ADC	EmoteDotNow.ADCChannel.ADC_Channel2	
10	Ground	NA	

* Sometimes referred to as VBattOut.

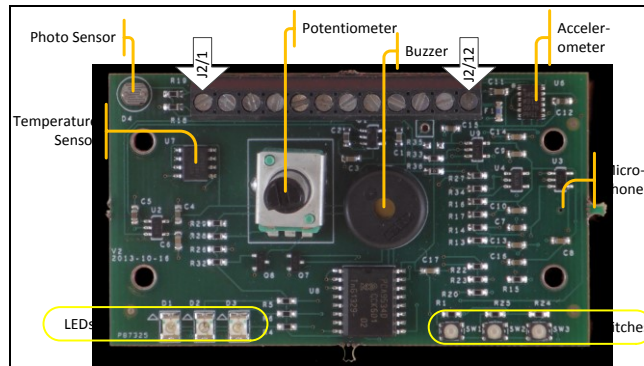


Kiwi Multi-Sensor Pinouts & Components

Pin	Type	Designation	Remarks
Connector J2			
1	Analog or Digital	Buzzer	+2v/Gnd*: Buzzer input
2	Analog	Pot	Potentiometer output. Referenced to 1.8v
3	Analog	Photo	Photosensor output. Referenced to 1.8v
4	Digital	Temp	Temperature output
5	Analog	Mic Out	Microphone output. Referenced to 1.8v
6	I2C	SDA	I2C data. <i>Not</i> pulled high internally [§]
7	I2C	SCL	I2C clock. <i>Not</i> pulled high internally [§]
8	Digital	Int	+2.8v when interrupt occurs; else Gnd
9		Other Power	[2v, 16v] to enable power for other functions; else Gnd*
10		Mic Power	[2v, 16v] to enable power for microphone; else Gnd*
11		Gnd	Ground
12		Vin	[3v, 16v]: Power supply for the board

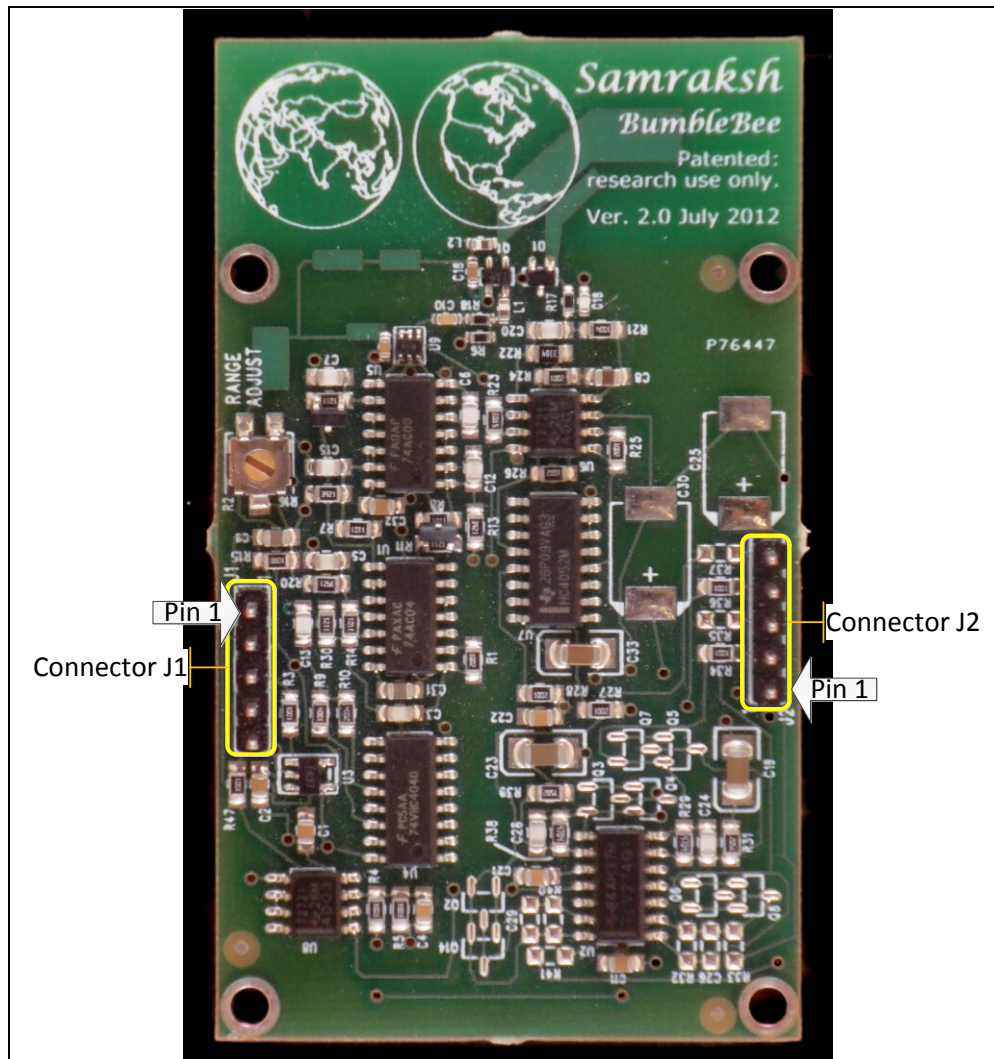
*Need not be connected. Not connected is the same as Gnd.

[§]Assumes that connected controller (such as .NOW) pulls pins high internally.



BumbleBee Pinouts & Components

Pin	Type	Designation	Remarks
Connector J1			
1	In	Ground	
2	In	Power	[3.65v, 16v]
3	In	Shutdown	Assert high to turn on else low
Connector J2			
1	Out	Ground	
2			Unused
3	Out	In Phase	Analog [0,3.3v] The modulated return with 0° offset
4			Unused
5	Out	Quadrature	Analog [0,3.3v] The modulated return with 90° offset



Connecting Kiwi Multi-Sensor Accelerometer to .NOW

Kiwi		.NOW	
Pin Desc	Number	Pin Desc	Number
I2C SDA	J2/6	I2C SDA	J11/10
I2C SCL	J2/7	I2C SCL	J11/9
Other Power	J2/9	Any GPIO pin for controllable power; Else +2v for always on	GPIO; J11/2
Gnd	J2/11	Ground	J12/10
Vin	J2/12	VOut	J11/1

Connecting Kiwi Multi-Sensor Temperature Sensor to .NOW

Kiwi		.NOW	
Pin Desc	Number	Pin Desc	Number
Temp	J2/4	Any GPIO	GPIO
Other Power	J2/9	Any GPIO pin for controllable power; Else +2v for always on	GPIO; J11/2
Gnd	J2/11	Ground	J12/10
Vin	J2/12	VOut	J11/1

Connecting Kiwi Multi-Sensor Microphone Sensor to .NOW

Kiwi		.NOW	
Pin Desc	Number	Pin Desc	Number
Mic Out	J2/5	ADC 1	J12/8
Mic Power	J2/10	Any GPIO pin for controllable power; Else +2v for always on	GPIO; J11/2
Gnd	J2/11	Ground	J12/10
Vin	J2/12	VOut	J11/1

Connecting BumbleBee Radar to .NOW

Using eMote with power from USB or from battery pack of at least 3.65 volts

BumbleBee		.NOW		Comments
Pin Desc	Number	Pin Desc	Number	
Ground	J1/1	Ground	J12/10	
Power	J1/2	VOut	J11/1	
Shutdown	J1/3	GPIO or +2v	Use GPIO for controllable on/off or J11/2 for always on	
Ground	J2/1			Need not be connected for eMote power
In Phase (real)	J2/2	ADC 1	J12/8	
Quadrature (imaginary)	J2/4	ADC 2	J12/9	