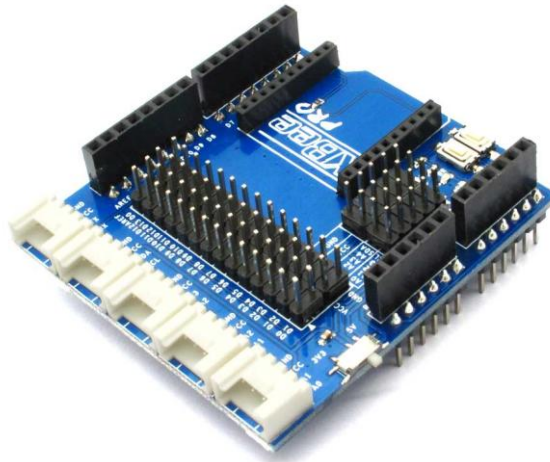


Arduino Sensor Shield

Overview



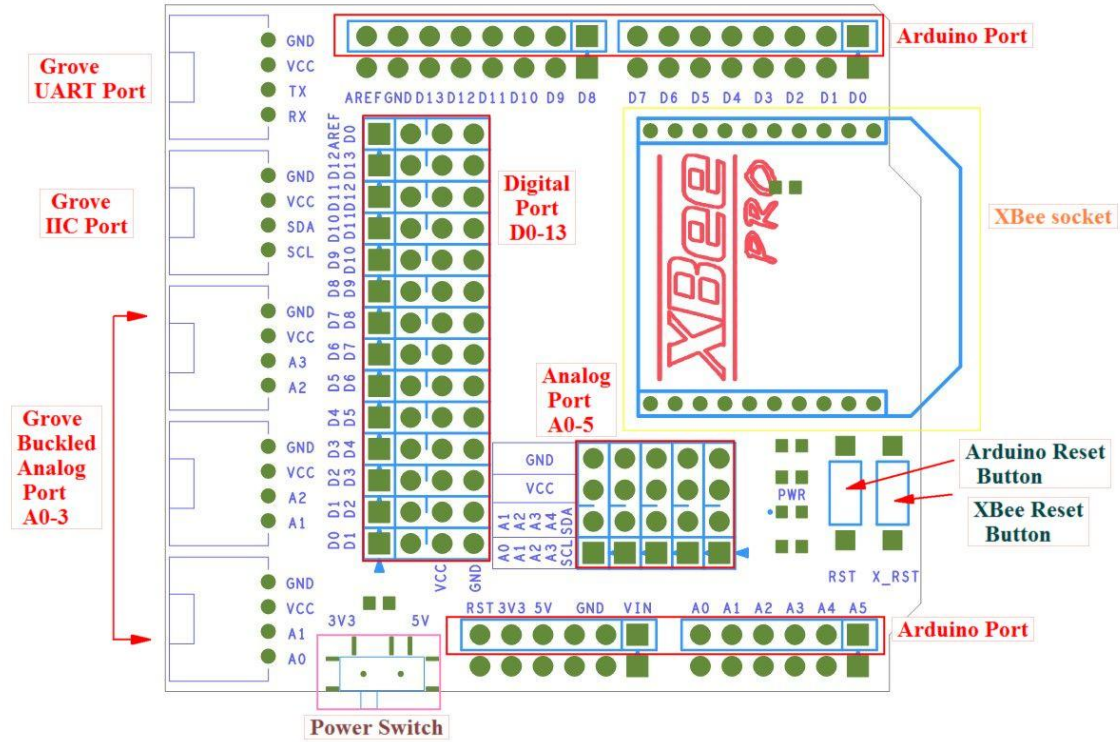
Arduino sensor shield is specifically designed for Arduino board to connect to various types of electronic brick modules. The latest version of shield can support electronic bricks with 3-wire and 4-wire communication, and it is compatible with the mainstream two interfaces of electronic bricks in the market: 2.0mm 4-pin grove interface and 2.54mm 3-pin interface. In addition, the shield is equipped with XBee interface for users to connect it with various external wireless modules which are compatible with XBee module interface. When working together with BTBee Pro, it can be used as a board.

Specifications

PCB Size	61.0mm X 55.46mm X 1.6mm
Working voltage	3.3/5V DC
Operating voltage	3.3/V DC
Compatible interfaces	2.54 3/4-pin interface, Grove 4-pin interface (1) and XBee interface

Note 1: *V and G for voltage at the common collector and ground respectively*

Hardware



pinMap

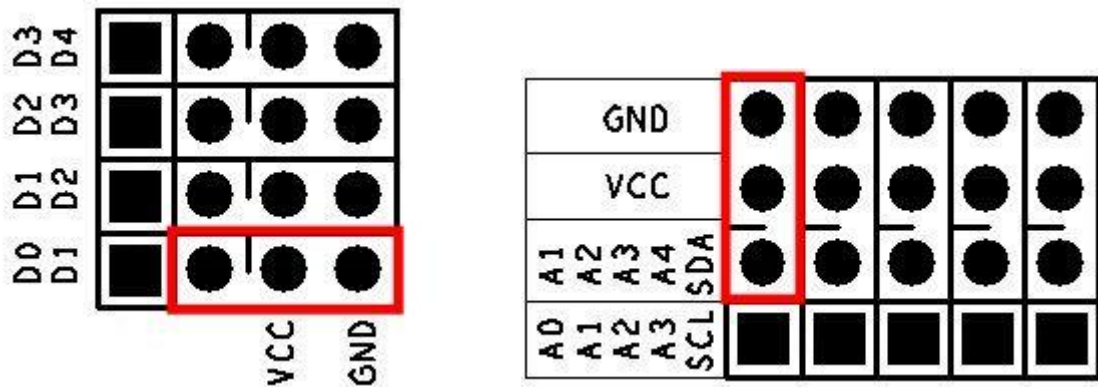
Index of Interface	Name of Interface	Index of Arduino
1	D0	D0
2	D1	D1
3	D2	D2
4	D3	D3
5	D4	D4
6	D5	D5
7	D6	D6
8	D7	D7
9	D8	D8
10	D9	D9
11	D10	D10
12	D11	D11
13	D12	D12
14	D13	D13

15	AREF	AREF
16	A0	A0
17	A1	A1
18	A2	A2
20	A3	A3
21	A4	A4
22	A5	A5
23	TX	D1
24	RX	D0
25	SCL	A5
26	SDA	A4

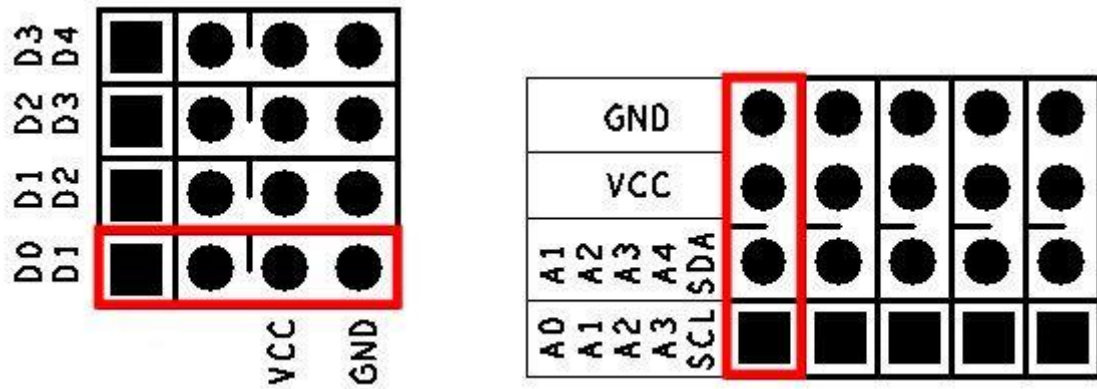
Installation

Electronic brick interface

When connecting to 3-wire electronic brick with 2.54mm connection cable, please follow the way in the figures below. The red frame indicates position for 3-pin connection cable, after connecting, electronic brick is linked to D0 and A0 pin of the board.

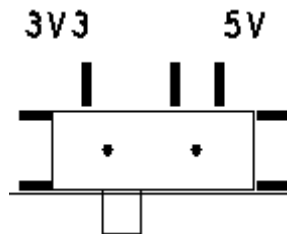


When connecting to 4-wire electronic brick with 2.54mm connection cable, please follow the way in the figures below. The red frame indicates position for 4-pin connection cable, after connecting, electronic brick is linked to D0 and D1, A0 and A1 pin of the board.



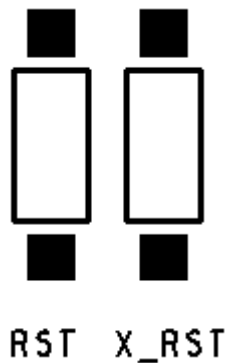
Power switch

It is used to switch the power supply VCC to the electronic brick. When switched to 3.3V, it indicates that VCC power supply from the shield to the electronic brick is 3.3V; when switched to 5V, it indicates that VCC power supply from the shield to the electronic brick is 5V.



Reset button

Press RST button to reset Arduino board; press X_RST button to reset XB33 module.



Revision record

Version	Description	Written by	Date
v1.0	Initial edition	Stan Lee	3 rd , May, 2013