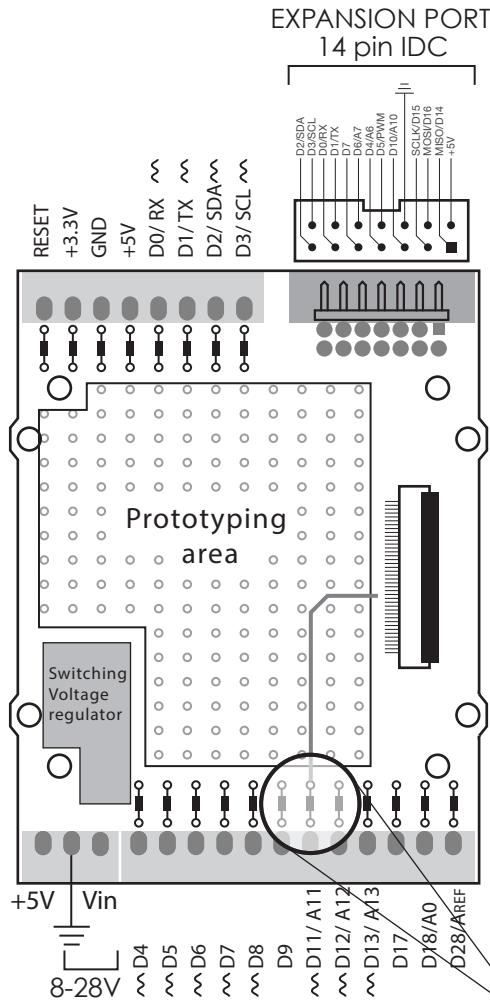


Industruino Proto

with ATSAM21G18 MCU

www.industruino.com
connect@industruino.com

PROTO BASEBOARD



EXPANSION PORT
14 pin IDC

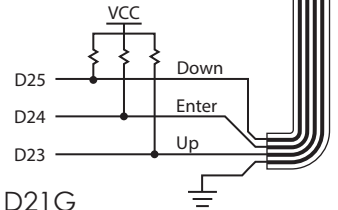
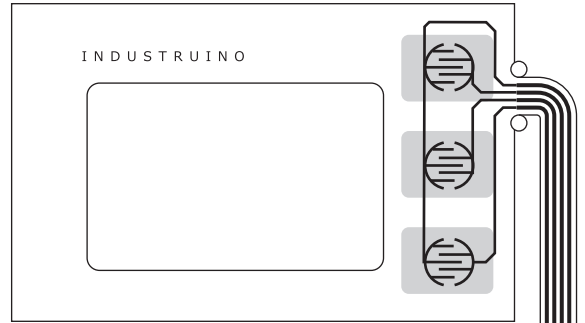
40 pin FPC cable

BASEBOARD	ATMEGA PIN	PORT PIN	TOPBOARD	
FPC pin Baseboard 1st side	MCU pin	Port Pin	FPC pin Baseboard 4th side	
40			1	
39	I2c - main control bus / 14p IDC	26 PA17	I2c SCL 3	SCL 2
38	I2c - main control bus / 14p IDC	25 PA16	I2c SDA 2	SDA 4
37	RS485 TX / 14p IDC	27 PA18	Serial TX 1	TXD 6
36				7
35	RS485 RX / 14p IDC	28 PA19	Serial RX 0	RXD 8
34				9
33		31 PA22		10
32				11
31	SPI 14p IDC	32 PA23	SPI SCLK 15	SCLK 11
30				12
29	SPI 14p IDC	37 PB22	SPI MISO 14	MISO 13
28	SPI 14p IDC	38 PB23	SPI MOSI 16	MOSI 14
27				15
26				16
25				17
24				18
23	14p IDC	7 PB08	A A4 4	A4 19
22				20
21	14p IDC	15 PA10	Serial TX 5	AS 5 TXD1 20
20				21
19	14p IDC	8 PB09	A A6 6	A6 22
18				23
17	14p IDC	9 PA04	A A7 7	A7 24
16				25
15	24V digital input PCINT	10 PA05	A A8 8	A8 26
14				27
13	RS485-E	11 PA06	A A9 9	A9 28
12				29
11	14p IDC	12 PA07	Serial RX 10	A10 30
10				31
9				32
8				33
7				34
6				35
5				36
4				37
3				38
2				39
1				40

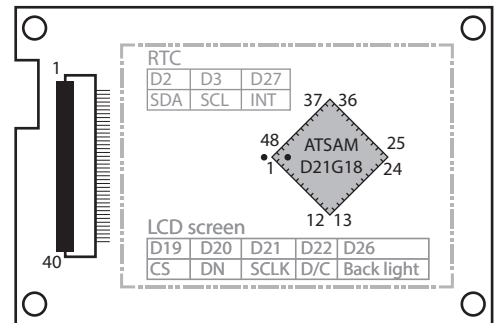
GND PIN
VCC PIN
DIGITAL PIN
ANALOG PIN
PWM PIN
SERIAL PIN

BUTTON PANEL

4 pin FPC cable



TOPBOARD D21G



POWER-IN



- 1) The jumpers can be removed to disconnect MCU pin from external connector.
- 2) 2 pads are available per pin; one to connect your internal components to an MCU, the other to connect your internal components to the external connectors.

Industruino PROTO is a robust fully enclosed Arduino compatible controller.

+5V connection on bottom left 3 pin power connector is by default not connected to the internal 5V rail. This is to protect from accidental connection to Vin voltage. The 5V rail can be connected to the external connector by bridging the jumper labelled "+5V out" on the bottom side of the board.

The PROTO baseboard has 20 screw connectors that by default are connected to the MCU pins via jumpers.

Proto Baseboard

Prototyping area
8-28 Vin -> 5V/2A switching voltage regulator
TVS protected supply rail
19 digital pins (12 with PWM support)
12 analog pins (shared with digital pins).

Topboard D21G

ATSAMD21G18 MCU
Flash Memory 256 KB
SRAM 32 KB
Clock Speed 48 MHz

INDUSTRUINO



Arduino libraries are available for download on our website:
www.industruino.com

Industruino is an Arduino compatible industrial controller with LCD screen, housed in a robust DIN-rail casing.