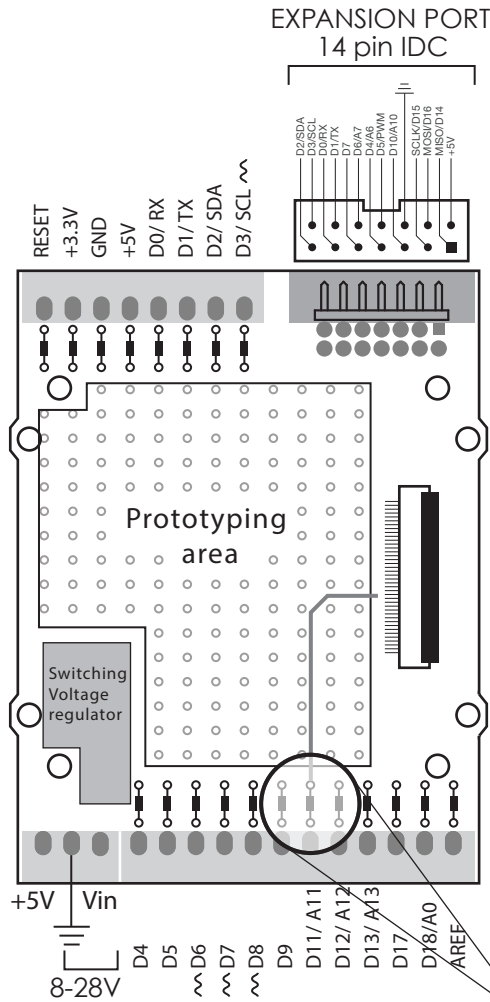


# Industruino Proto

with Atmega AT90USB1286 MCU

www.industruino.com  
connect@industruino.com

## PROTO BASEBOARD



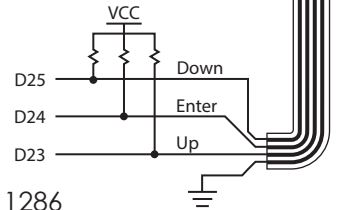
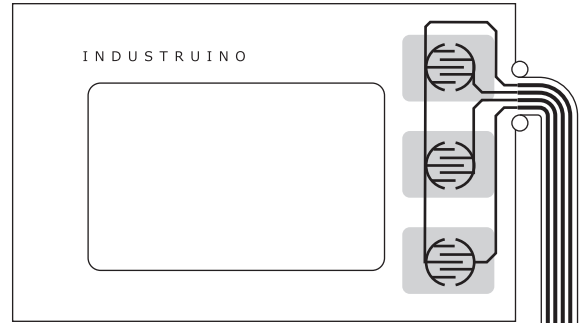
EXPANSION PORT  
14 pin IDC

40 pin FPC cable

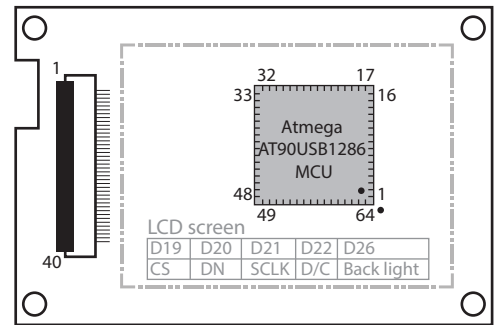
BASEBOARD FPC pin Base board side	ATMEGA PIN PORT PIN	Pin Function	Digital Pin	Analog Pin	PWM Pin	Serial Pin	TOPBOARD FPC pin Top board side
39	18	PD0	INT0/OC0B	3	3	SCL	2
37	19	PD1	INT1	2		SDA	4
35	21	PD3	INT3	1		TXD1	6
33	20	PD2	INT2	0		RXD1	8
32	8	PB0	SS/PCINT0	17			9
30	9	PB1	SCLK/PCINT1	15		SCLK	11
28	11	PB3	MISO/PCINT3	14		MISO	13
27	10	PB2	MOSI/PCINT2	16		MOSI	14
26	33	RESET	RESET	16			15
24		VIN		17			17
23	37	PC2		4			18
21	38	PC3	T.3	5			20
19	39	PC4	OC3C	6	6		22
17	40	PC5	OC3B	7	7		24
15	41	PC6	OC3A	8	8		26
13	42	PC7	CLK0	9			28
11	54	PF7	TDI	10	A10		30
9	55	PF6	TDO	11	A11		32
7	56	PF5	TMS	12	A12		34
5	57	PF4	TCK	13	A13		36
3	58	PF3		18	A0		38
2	62		AREF				39

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

BUTTON PANEL  
4 pin FPC cable



TOPBOARD 1286



## POWER-IN



- 1) 0 Ω resistors 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 0 Ohm resistors.

## Proto Baseboard

Prototyping area  
8-28 Vin -> 5V/2A switching voltage regulator  
TVS protected supply rail  
15 digital pins (7 with PWM support)  
7 analog pins (shared with digital pins).

## Topboard 1286

Atmega AT90USB1286 MCU  
Flash Memory 128 KB  
SRAM 8 KB  
EEPROM 4 KB.

## 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.