LEGEND

- GND
- POWER
- CONTROL
- PHYSICAL PIN
- PORT PIN
- ATMEGA328 PIN FUNC
- DIGITAL PIN
- ANALOG-RELATED PIN
- PWM PIN
- SERIAL PIN
- ARDUINO PIN

- Source Total 150mA
- Source Total 150mA
- General Information
- ⚠ Pay Attention
- 🛑 No Really **PAY ATTENTION**
- ▼ LED

THE UNOFFICIAL

ARDUINO UNO PINOUT DIAGRAM

⚠ **Absolute** max per pin 40mA reccomended 20mA

🛑 **Absolute** max 200mA for entire package

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GND

VIN

2.1 m

7-12v depending on current drawn

ATMEGA328 (DIP)

RESET	PCINT5	PC6	1	28	PC5	PCINT13	ADC5	A5	SCL
0 RXD	PCINT16	PD0	2	27	PC4	PCINT12	ADC4	A4	SDA
1 TXD	PCINT17	PD1	3	26	PC3	PCINT11	ADC3	A3	
2 INT0	PCINT18	PD2	4	25	PC2	PCINT10	ADC2	A2	
OC2B PWM 3 INT1	PCINT19	PD3	5	24	PC1	PCINT9	ADC1	A1	
T0 4 XCK	PCINT20	PD4	6	23	PC0	PCINT8	ADC0	A0	
VCC			7	22	GND				
GND			8	21	AREF				
OSC1 XTAL1	PCINT6	PB6	9	20	VCC				
OSC2 XTAL2	PCINT7	PB7	10	19	PB5	PCINT5	SCK	13	
OC0B PWM 5 T1	PCINT21	PD5	11	18	PB4	PCINT4	MISO	12	
OC0A PWM 6 AIN0	PCINT22	PD6	12	17	PB3	PCINT3	OC2A	11 PWM	MOSI
7 AIN1	PCINT23	PD7	13	16	PB2	PCINT2	OC1B	10 PWM	SS
ICP1 8 CLKO	PCINT0	PB0	14	15	PB1	PCINT1	OC1A	9 PWM	

POWER BARREL JACK

USB JACK

Reserved

R3 Only ℹ

| IOREF |
| RESET |
| 3V3 |
| 5V |
| GND |
| GND |
| Vin |

ATMEGA328

IOREF
RESET
3,3V
5V
GND
GND
Vin

ANALOG IN
A0
A1
A2
A3
A4
A5

ICSP

RESET
SCK
MISO

SCL
SDA
AREF
GND

R3 Only ℹ

GND

13	PB5		PCINT5		SCK	▼ L
12	PB4		PCINT4		MISO	
11	PB3	OC2A	PCINT3	PWM	MOSI	
10	PB2	OC1B	PCINT2	PWM	SS	
9	PB1	OC1A	PCINT1	PWM		
8	PB0	CLKO	PCINT0		ICP1	

⚠ Sink Total 100mA

7	13	PD7	AIN1	PCINT23		
6	12	PD6	AIN0	PCINT22	PWM	OC0A
5	11	PD5		T1	PCINT21	PWM
4	6	PD4		T0	PCINT20	XCK
3	5	PD3		INT1	PCINT19	PWM OC2B
2	4	PD2		INT0	PCINT18	
TX 1	3	PD1		TXD	PCINT17	TX
RX 0	2	PD0		RXD	PCINT16	RX

⚠ Sink Total 100mA

ℹ Connected to the ATMega and used for USB program and communicating with it

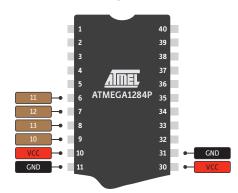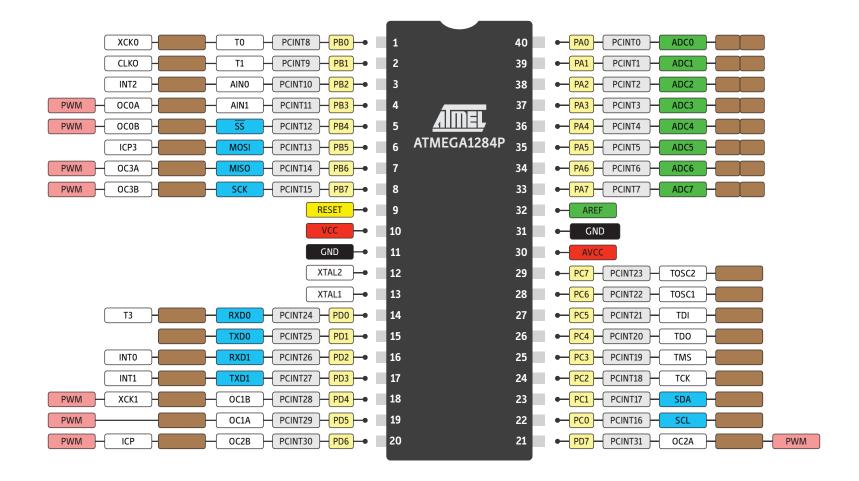| PCINT8 | ADC0 | PC0 | 23 |
PCINT9	ADC1	PC1	24
PCINT10	ADC2	PC2	25
PCINT11	ADC3	PC3	26
SDA PCINT12	ADC4	PC4	27
SCL PCINT13	ADC5	PC5	28

⚠ Sink Total 100mA

5V
MOSI
GND

Using Arduino as ICSP Programmer for ATMEGA1284P

LEGEND

GND
POWER
CONTROL
PORT PIN
ATMEGA PIN FUNC
DIGITAL PIN
ANALOG-RELATED PIN
PWM PIN
SERIAL PIN
ARDUINO PIN

ATMEGA1284P

Left					Pin		Pin					Right
XCK0		T0	PCINT8	PB0	1		40	PA0	PCINT0	ADC0		
CLKO		T1	PCINT9	PB1	2		39	PA1	PCINT1	ADC1		
INT2		AIN0	PCINT10	PB2	3		38	PA2	PCINT2	ADC2		
PWM	OC0A	AIN1	PCINT11	PB3	4		37	PA3	PCINT3	ADC3		
PWM	OC0B	SS	PCINT12	PB4	5		36	PA4	PCINT4	ADC4		
ICP3		MOSI	PCINT13	PB5	6		35	PA5	PCINT5	ADC5		
PWM	OC3A	MISO	PCINT14	PB6	7		34	PA6	PCINT6	ADC6		
PWM	OC3B	SCK	PCINT15	PB7	8		33	PA7	PCINT7	ADC7		
			RESET		9		32	AREF				
			VCC		10		31	GND				
			GND		11		30	AVCC				
			XTAL2		12		29	PC7	PCINT23	TOSC2		
			XTAL1		13		28	PC6	PCINT22	TOSC1		
T3		RXD0	PCINT24	PD0	14		27	PC5	PCINT21	TDI		
		TXD0	PCINT25	PD1	15		26	PC4	PCINT20	TDO		
INT0		RXD1	PCINT26	PD2	16		25	PC3	PCINT19	TMS		
INT1		TXD1	PCINT27	PD3	17		24	PC2	PCINT18	TCK		
PWM	XCK1	OC1B	PCINT28	PD4	18		23	PC1	PCINT17	SDA		
PWM		OC1A	PCINT29	PD5	19		22	PC0	PCINT16	SCL		
PWM	ICP	OC2B	PCINT30	PD6	20		21	PD7	PCINT31	OC2A		PWM

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03 FEB 2013

LEGEND

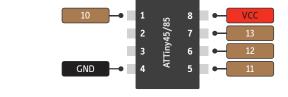| |
|---|
| GND |
| POWER |
| CONTROL |
| PORT PIN |
| ATMEGA328 PIN FUNC |
| DIGITAL PIN |
| ANALOG-RELATED PIN |
| PWM PIN |
| SERIAL PIN |
| ARDUINO PIN |

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UNOFFICIAL
ARDUINO
&
ATTiny
PINOUT DIAGRAM

Using Arduino as ICSP Programmer for ATTiny45/85

10		1	8	VCC
		2	7	13
		3	6	12
GND		4	5	11

ATTiny45/85

| PWM | XTAL1 | CLKI | $\overline{OC1B}$ | 3 | A3 | ADC3 | PCINT3 | PB3 | | 2 | 7 | PB2 | PCINT2 | ADC1 | A1 | 2 | SCK | SCL | USCK | T0 | INT0 |

| ADC0 | dW | RESET | PCINT5 | PB5 | | 1 | 8 | VCC |

| PWM | XTAL2 | CLKO | OC1B | 4 | A2 | ADC2 | PCINT4 | PB4 | | 3 | 6 | PB1 | PCINT1 | MISO | 1 | AIN1 | OC0B | OC1A | DO | PWM |

| GND | | 4 | 5 | PB0 | PCINT0 | AREF | 0 | MOSI | SDA | AIN0 | OC0A | $\overline{OC1A}$ | DI | PWM |

ATTiny45/85

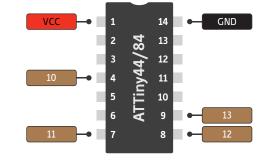| | VCC | | 1 | 14 | GND | |
10	XTAL1	PCINT8	PB0	2	13	PA0	PCINT0	ADC0	A0	0	AREF
9	XTAL2	PCINT9	PB1	3	12	PA1	PCINT1	ADC1	A1	1	
dW	RESET	PCINT11	PB3	4	11	PA2	PCINT2	ADC2	A2	2	
PWM	OC0A	CKOUT	8	INT0	PCINT10	PB2	5	10	PA3	PCINT3	ADC3	A3	3
PWM	ICP	OC0B	7	A7	ADC7	PCINT7	PA7	6	9	PA4	PCINT4	ADC4	A4	4	SCK	SCL	T1
PWM	MOSI	SDA	OC1A	6	A6	ADC6	PCINT6	PA6	7	8	PA5	PCINT5	ADC5	A5	5	MISO	OC1B	DO	PWM

ATTiny44/84

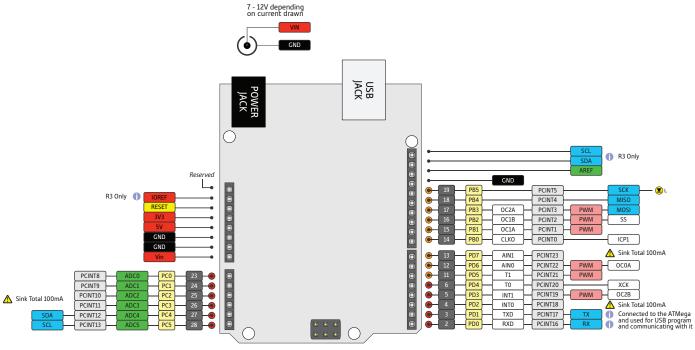### Using Arduino as ICSP Programmer for ATTiny44/84

VCC		1	14	GND
		2	13	
		3	12	
10		4	11	
		5	10	
		6	9	13
11		7	8	12

ATTiny44/84

29 JAN 2013

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ARDUINO

UNO

PINOUT DIAGRAM

LEGEND

GND
POWER
CONTROL
PHYSICAL PIN
PORT PIN
ATMEGA328 PIN FUNC
DIGITAL PIN
ANALOG-RELATED PIN
PWM PIN
SERIAL PIN
ARDUINO PIN

- Source Total 150mA
- Source Total 150mA
- ⓘ General Information
- ⚠ Pay Attention
- 🛑 No Really **PAY ATTENTION**
- ⊙ LED

7 - 12V depending on current drawn

VIN
GND

POWER JACK

USB JACK

SCL
SDA
AREF   ⓘ R3 Only

GND

Reserved

R3 Only ⓘ

IOREF			
RESET			
3V3			
5V			
GND			
GND			
Vin			

19	PB5		PCINT5		SCK	⊙ L
18	PB4		PCINT4		MISO	
17	PB3	OC2A	PCINT3	PWM	MOSI	
16	PB2	OC1B	PCINT2	PWM	SS	
15	PB1	OC1A	PCINT1	PWM		
14	PB0	CLKO	PCINT0		ICP1	

⚠ Sink Total 100mA

13	PD7	AIN1	PCINT23			
12	PD6	AIN0	PCINT22	PWM	OC0A	
11	PD5	T1	PCINT21	PWM		
6	PD4	T0	PCINT20		XCK	
5	PD3	INT1	PCINT19	PWM	OC2B	
4	PD2	INT0	PCINT18			
3	PD1	TXD	PCINT17	TX		
2	PD0	RXD	PCINT16	RX		

⚠ Sink Total 100mA

ⓘ Connected to the ATMega and used for USB program and communicating with it

⚠ Sink Total 100mA

PCINT8	ADC0	PC0	23	●
PCINT9	ADC1	PC1	24	●
PCINT10	ADC2	PC2	25	●
PCINT11	ADC3	PC3	26	●
SDA	PCINT12	ADC4	PC4	27	●
SCL	PCINT13	ADC5	PC5	28	●

ICSP

RESET
SCK
MISO

5V
MOSI
GND

⚠ **Absolute** max per pin 40mA reccomended 20mA

🛑 **Absolute** max 200mA for entire package

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30 JAN 2013

laminating the sheet, punch holes and enjoy your work!

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ARDUINO
DUE
PINOUT DIAGRAM

LEGEND

GND
POWER
CONTROL
PHYSICAL PIN
PORT PIN
SAM3X8E PIN FUNC
DIGITAL PIN
ANALOG-RELATED PIN
PWM PIN
SERIAL PIN

- HIGH-CURRENT PIN source 15mA, sink 9mA
- LOW-CURRENT PIN source 3mA, sink 6mA
- LED
- General information
- Pay attention
- No really PAY ATTENTION

Absolute max 130mA for entire package.

GND

VIN
2.1mm
7-12v depending on current drawn

POWER BARREL JACK

USB PROG
USB NATIVE
ON L TX RX

RESET
TDI
TDO
TCK
TMS
JTAG

ATmega16U2

GND
MOSI2
5V
ICSP

3V3

TMS
TCK
SWDIO
SWCLK
GND
DEBUG (SWD)

RESET

GND

NOT USED
IOREF
RESET
3V3
5V
GND
GND
VIN

MISO2
SCK2
RESET2

SAM3X8E

MISO A.25 108
SCK   A.27 110
RESET
SPI
GND
MOSI A.26 109
5V

ERASE

9	A.17	TWD0	D71	SCL1	SCK0
70	A.18	TWCK0	D70	SDA1	SDA1
				AREF	

SCL1
SDA1
GND

SCK0 allows Serial1 to be used for SPI

68	B.27	TIOB0	D13	PWM13	L
21	D.8	TIOB8	D12	PWM12	
20	D.7	TIOA8	D11	PWM11	
102	C.29 A.28	TIOB7	D10 D77	PWM10	SPI-CS0 ETH-CS
132	C.21	PWML4	D9	PWM9	
133	C.22	PWML5	D8	PWM8	

Note duplicate logical pin definition (D10/77 and D4/87) and connected physical pins (C.29 to A.28 and C.26 to A.29).

7	134	C.23	PWML6	D7	PWM7
6	135	C.24	PWML7	D6	PWM6
5	136	C.25	TIOA6	D5	PWM5
4	137	C.26 A.29	TIOB6	D4 D87	PWM4 SPI-CS1 SD-CS
3	139	C.28	TIOA7	D3	PWM3
2	144	B.25	TIOA0	D2	PWM2
TX0 1	2	A.9	UTXD	D1	TX0
RX0 0	27	A.8	URXD	D0	RX0

Connected to the ATmega16U2 and used for USB programming and communicating with the PC.

TX3 14	17	D.4	TXD3	D14	TX3
RX3 15	18	D.5	RXD3	D15	RX3
TX2 16	6	A.13	TXD1	D16	TX2
RX2 17	5	A.12	RXD1	D17	RX2
TX1 18	4	A.11	TXD0	D18	TX1
RX1 19	3	A.10	RXD0	D19	RX1
SDA 20	86	B.12	TWD1	D20	SDA AD8
SCL 21	87	B.13	TWCK1	D21	SCL AD9

1k5 pull up to 3V3

SCK1 allows Serial2 to be used for SPI

SCK1	A0	D54	AD7	A.16	78
TD	A1	D55	AD6	A.24	79
	A2	D56	AD5	A.23	80
	A3	D57	AD4	A.22	81
	A4	D58	AD3	A.6	82
	A5	D59	AD2	A.4	83
	A6	D60	AD1	A.3	84
	A7	D61	AD0	A.2	85

ANALOG IN
A0 A1 A2 A3 A4 A5 A6 A7

RF	A8	D62	AD10	B.17	88
RD	A9	D63	AD11	B.18	89
RK	A10	D64	AD12	B.19	90
TXD2	A11	D65	AD13	B.20	91
CANRX1	DAC0	D66	DAC0	B.15	76
	DAC1	D67	DAC1	B.16	77
	CANRX	D68	CANRX0	A.1	24
	CANTX	D69	CANTX0	A.0	23

A8 A9 A10 A11 DAC0 DAC1 CANRX CANTX

Unsupported serial port Could be Serial4 one day?

	D38	PWML2	C.6	64
	D40	PWML3	C.8	66
	D42	PWMH1	A.19	71
	D44	PWMH5	C.19	101
	D46		C.17	99
	D48		C.15	97
	D50		C.13	95
RXD2 SPI-CS2	D52	AD14	B.21	92

GND
GND

116	C.4	PWML1	D36	
59	C.2	PWML0	D34	
32	D.10		D32	
22	D.9		D30	
16	D.3		D28	
14	D.1		D26	
8	A.15		D24	TF
1	B.26	TCLK0	D22	

52 50 48 46 44 42 40 38 36 34 32 30 28 26 24 22
53 51 49 47 45 43 41 39 37 35 33 31 29 27 25 23

GND
GND
5V
5V

WARNING! Applying voltages greater than 3.3v to any pin may cause **irreversible damage** to the circuitry on the DUE board, including but not limited to destroying the ARM processor.

CANTX1	D53	PWMH2	B.14	140
	D51	PWML2	C.12	94
	D49	PWMH6	C.14	96
	D47		C.16	98
	D45	PWMH6	C.18	100
	D43	PWML2	A.20	72
	D41	PWMH3	C.9	67
	D39	PWMH2	C.7	65

7	A.14		D23	TK
13	D.0		D25	
15	D.2		D27	
19	D.6	PWMFI2	D29	
26	A.7		D31	
55	C.1		D33	
60	C.3	PWMH0	D35	
63	C.5	PWMH1	D37	

GRAY NOMAD
www.robgray.com

CC BY ND

18 Nov 2012

LEGEND

- GND
- POWER
- CONTROL
- PORT PIN
- ATMEGA PIN FUNC
- DIGITAL PIN
- ANALOG-RELATED PIN
- PWM PIN
- SERIAL PIN
- ARDUINO PIN

Using Arduino as ICSP Programmer for ATMEGA644P

THE UNOFFICIAL
ARDUINO
&
ATMega644P
PINOUT DIAGRAM

ATMEL
ATMEGA644P

Left				Pin		Pin			Right
11				6		35			
12				7		34			
13				8		33			
10				9		32			
VCC				10		31			GND
GND				11		30			VCC

ATMEL ATMEGA644P

					Pin		Pin						
XCK0	0	T0	PCINT8	PB0	1	40	PA0	PCINT0	ADC0	A0	24		
CLKO	1	T1	PCINT9	PB1	2	39	PA1	PCINT1	ADC1	A1	25		
INT2	2	AIN0	PCINT10	PB2	3	38	PA2	PCINT2	ADC2	A2	26		
PWM OC0A	3	AIN1	PCINT11	PB3	4	37	PA3	PCINT3	ADC3	A3	27		
PWM OC0B	4	SS	PCINT12	PB4	5	36	PA4	PCINT4	ADC4	A4	28		
	5	MOSI	PCINT13	PB5	6	35	PA5	PCINT5	ADC5	A5	29		
	6	MISO	PCINT14	PB6	7	34	PA6	PCINT6	ADC6	A6	30		
	7	SCK	PCINT15	PB7	8	33	PA7	PCINT7	ADC7	A7	31		
		RESET			9	32	AREF						
		VCC			10	31	GND						
		GND			11	30	AVCC						
		XTAL2			12	29	PC7	PCINT23	TOSC2	23			
		XTAL1			13	28	PC6	PCINT22	TOSC1	22			
	8	RXD0	PCINT24	PD0	14	27	PC5	PCINT21	TDI	21			
	9	TXD0	PCINT25	PD1	15	26	PC4	PCINT20	TDO	20			
INT0	10	RXD1	PCINT26	PD2	16	25	PC3	PCINT19	TMS	19			
INT1	11	TXD1	PCINT27	PD3	17	24	PC2	PCINT18	TCK	18			
PWM XCK1	12	OC1B	PCINT28	PD4	18	23	PC1	PCINT17	SDA	17			
PWM	13	OC1A	PCINT29	PD5	19	22	PC0	PCINT16	SCL	16			
PWM ICP	14	OC2B	PCINT30	PD6	20	21	PD7	PCINT31	OC2A	15	PWM		

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ARDUINO
UNO
PINOUT DIAGRAM

LEGEND

GND
POWER
CONTROL
PHYSICAL PIN
PORT PIN
ATMEGA328 PIN FUNC
DIGITAL PIN
ANALOG-RELATED PIN
PWM PIN
SERIAL PIN
ARDUINO PIN

- Source Total 150mA
- Source Total 150mA
- General Information
- ⚠ Pay Attention
- 🛑 No Really **PAY ATTENTION**
- Ⓛ LED

7 - 12V depending on current drawn

VIN
GND

ATMEGA328

Reserved

R3 Only ⓘ

Sink Total 100mA

⚠ Sink Total 100mA
⚠ Sink Total 100mA

ⓘ Connected to the ATMega and used for USB program and communicating with it

R3 Only ⓘ

POWER JACK

USB JACK

ICSP

⚠ **Absolute** max per pin 40mA reccomended 20mA

🛑 **Absolute** max 200mA for entire package

laminating the sheet, punch holes and enjoy your work!

THE
UNOFFICIAL

ARDUINO
&
ATMEGA328

PINOUT DIAGRAM

LEGEND

GND
POWER
CONTROL
PORT PIN
ATMEGA328 PIN FUNC
DIGITAL PIN
ANALOG-RELATED PIN
PWM PIN
SERIAL PIN
ARDUINO PIN

ATMEGA328

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29 JAN 2013

LEGEND

GND	
POWER	
CONTROL	
PORT PIN	
ATMEGA PIN FUNC	
DIGITAL PIN	
ANALOG-RELATED PIN	
PWM PIN	
SERIAL PIN	
ARDUINO PIN	

Using Arduino as ICSP Programmer for ATMEGA1284P

ATMEL
ATMEGA1284P

THE UNOFFICIAL
ARDUINO
&
ATMega1284P
PINOUT DIAGRAM

ATMEL
ATMEGA1284P

XCK0	0	T0	PCINT8	PB0	1	40	PA0	PCINT0	ADC0	A0	24
CLKO	1	T1	PCINT9	PB1	2	39	PA1	PCINT1	ADC1	A1	25
INT2	2	AIN0	PCINT10	PB2	3	38	PA2	PCINT2	ADC2	A2	26
PWM OC0A	3	AIN1	PCINT11	PB3	4	37	PA3	PCINT3	ADC3	A3	27
PWM OC0B	4	SS	PCINT12	PB4	5	36	PA4	PCINT4	ADC4	A4	28
ICP3	5	MOSI	PCINT13	PB5	6	35	PA5	PCINT5	ADC5	A5	29
PWM OC3A	6	MISO	PCINT14	PB6	7	34	PA6	PCINT6	ADC6	A6	30
PWM OC3B	7	SCK	PCINT15	PB7	8	33	PA7	PCINT7	ADC7	A7	31
			RESET		9	32	AREF				
			VCC		10	31	GND				
			GND		11	30	AVCC				
			XTAL2		12	29	PC7	PCINT23	TOSC2	23	
			XTAL1		13	28	PC6	PCINT22	TOSC1	22	
T3	8	RXD0	PCINT24	PD0	14	27	PC5	PCINT21	TDI	21	
	9	TXD0	PCINT25	PD1	15	26	PC4	PCINT20	TDO	20	
INT0	10	RXD1	PCINT26	PD2	16	25	PC3	PCINT19	TMS	19	
INT1	11	TXD1	PCINT27	PD3	17	24	PC2	PCINT18	TCK	18	
PWM XCK1	12	OC1B	PCINT28	PD4	18	23	PC1	PCINT17	SDA	17	
PWM	13	OC1A	PCINT29	PD5	19	22	PC0	PCINT16	SCL	16	
PWM ICP	14	OC2B	PCINT30	PD6	20	21	PD7	PCINT31	OC2A	15	PWM

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03 FEB 2013

Using Arduino as ICSP Programmer for ATMEGA1284P

LEGEND

GND
POWER
CONTROL
PORT PIN
ATMEGA PIN FUNC
DIGITAL PIN
ANALOG-RELATED PIN
PWM PIN
SERIAL PIN
ARDUINO PIN

THE UNOFFICIAL
ARDUINO
&
ATMega1284P
PINOUT DIAGRAM
Bobuino Version

ATMEGA1284P ICSP programmer connections:
- 11, 12, 13, 10 (Arduino pins)
- VCC
- GND
- Pin 10: GND
- Pin 30: VCC

Main Pinout (ATMEGA1284P)

Left side:

Arduino	ATMEGA FUNC	Serial/Control	PCINT	Port	Pin
XCK0 / 4	T0		PCINT8	PB0	1
CLKO / 5	T1		PCINT9	PB1	2
INT2 / 6	AIN0		PCINT10	PB2	3
PWM / OC0A / 7	AIN1		PCINT11	PB3	4
PWM / OC0B / 10		SS	PCINT12	PB4	5
ICP3 / 11		MOSI	PCINT13	PB5	6
PWM / OC3A / 12		MISO	PCINT14	PB6	7
PWM / OC3B / 13		SCK	PCINT15	PB7	8
	RESET				9
	VCC				10
	GND				11
	XTAL2				12
	XTAL1				13
T3 / 0		RXD0	PCINT24	PD0	14
1		TXD0	PCINT25	PD1	15
INT0 / 2		RXD1	PCINT26	PD2	16
INT1 / 3		TXD1	PCINT27	PD3	17
PWM / XCK1 / 30	OC1B		PCINT28	PD4	18
PWM / 8	OC1A		PCINT29	PD5	19
PWM / ICP / 9	OC2B		PCINT30	PD6	20

Right side:

Port	PCINT	Func	Analog / Arduino	Pin
PA0	PCINT0	ADC0	A7 / 21	40
PA1	PCINT1	ADC1	A6 / 20	39
PA2	PCINT2	ADC2	A5 / 19	38
PA3	PCINT3	ADC3	A4 / 18	37
PA4	PCINT4	ADC4	A3 / 17	36
PA5	PCINT5	ADC5	A2 / 16	35
PA6	PCINT6	ADC6	A1 / 15	34
PA7	PCINT7	ADC7	A0 / 14	33
		AREF		32
		GND		31
		AVCC		30
PC7	PCINT23	TOSC2	29	29
PC6	PCINT22	TOSC1	28	28
PC5	PCINT21	TDI	27	27
PC4	PCINT20	TDO	26	26
PC3	PCINT19	TMS	25	25
PC2	PCINT18	TCK	24	24
PC1	PCINT17	SDA	23	23
PC0	PCINT16	SCL	22	22
PD7	PCINT31	OC2A	31 / PWM	21

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THE UNOFFICIAL ARDUINO & ATMEGA328 PINOUT DIAGRAM

LEGEND

GND
POWER
CONTROL
PORT PIN
ATMEGA328 PIN FUNC
DIGITAL PIN
ANALOG-RELATED PIN
PWM PIN
SERIAL PIN
ARDUINO PIN

ATMEGA328

Left side (pins 1–14):

Arduino	Func	Func2	PinFunc	Port	Pin
		RESET	PCINT5	PC6	1
0		RXD	PCINT16	PD0	2
1		TXD	PCINT17	PD1	3
2		INT0	PCINT18	PD2	4
3	OC2B / PWM	INT1	PCINT19	PD3	5
4		T0	XCK	PCINT20	PD4	6
				VCC	7
				GND	8
	OSC1	XTAL1	PCINT6	PB6	9
	OSC2	XTAL2	PCINT7	PB7	10
5	OC0B / PWM	T1	PCINT21	PD5	11
6	OC0A / PWM	AIN0	PCINT22	PD6	12
7		AIN1	PCINT23	PD7	13
8	ICP1	CLKO	PCINT0	PB0	14

Right side (pins 15–28):

Pin	Port	PinFunc	Func	Func2	Arduino
28	PC5	PCINT13	ADC5	A5	SCL
27	PC4	PCINT12	ADC4	A4	SDA
26	PC3	PCINT11	ADC3	A3	
25	PC2	PCINT10	ADC2	A2	
24	PC1	PCINT9	ADC1	A1	
23	PC0	PCINT8	ADC0	A0	
22	GND				
21	AREF				
20	VCC				
19	PB5	PCINT5	SCK	13	
18	PB4	PCINT4	MISO	12	
17	PB3	PCINT3	OC2A	11 / PWM	MOSI
16	PB2	PCINT2	OC1B	10 / PWM	SS
15	PB1	PCINT1	OC1A	9 / PWM	

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