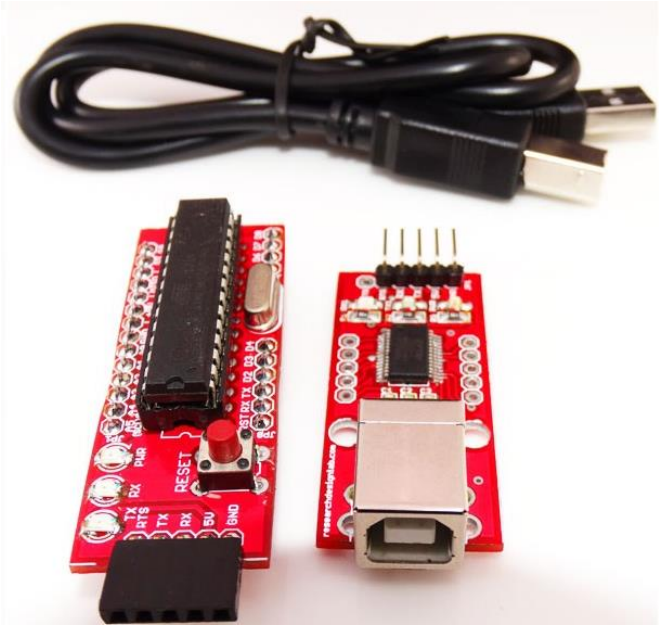
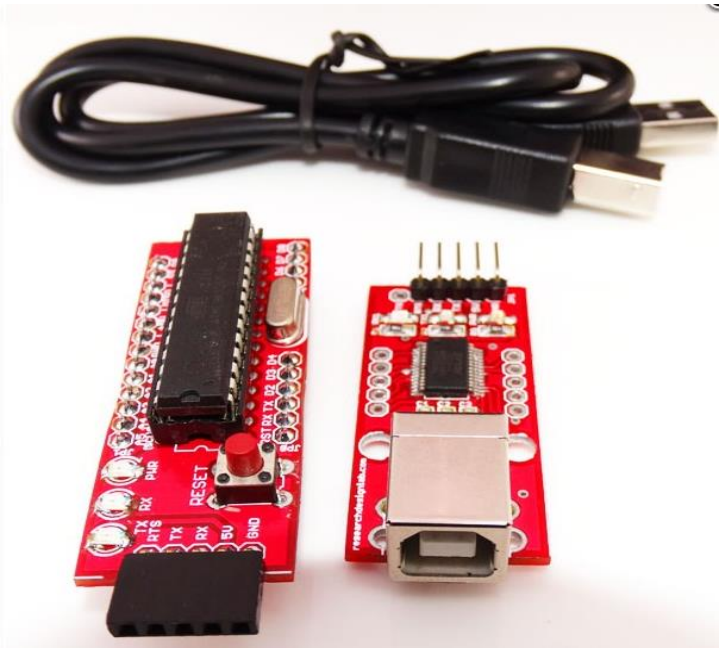
DIY UNO PLAY BREADBOARD ATMEGA328P WITH FT232 BREAKOUT BOARD



Contents

OVERVIEW

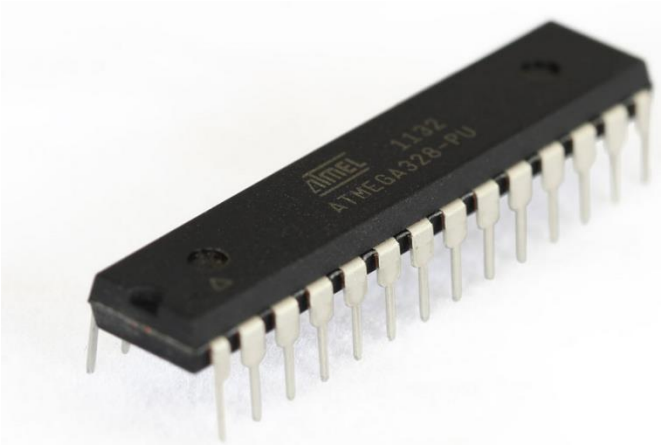
ATMEGA 328P PLAY BREADBOARD



Atmega 328 is one of the most commonly used Micro controllers with open source platform amongst many hobbyist and industrial communities. The simplicity and the low power of Atmega 328 helps design many prototype boards which could be used in numerous applications. The UNO Play Breadboard also includes 6 analog inputs, 14 digital I/O pins (6 amongst these could be used as PWM outputs), a crystal oscillator with 16MHz frequency, a 5 pin female connector to connect FT232 plugin.This board does not have an inbuilt USB to directly load the program from the computer. As we all know, once the program has been dumped into the board, the part of the USB connectors become useless. So to load the program we have given common interface through FT232 breakthrough board where we can connect to a computer and load the codes into the UNO Play Breadboard ATMEGA328P

It's a common high speed IC used to convert USB to serial converter. It's quite commonly used to connect a microcontroller TTL data to any USB interface host to establish a bridge for communications between USB to serial devices. This particular breakthrough board can be used to program RDL UNO ATMEGA 328P and use directly in to your own circuits. Also this breakthrough board can also act as a bridge between Xbee and its Xbee utility software to configure various Xbee's.

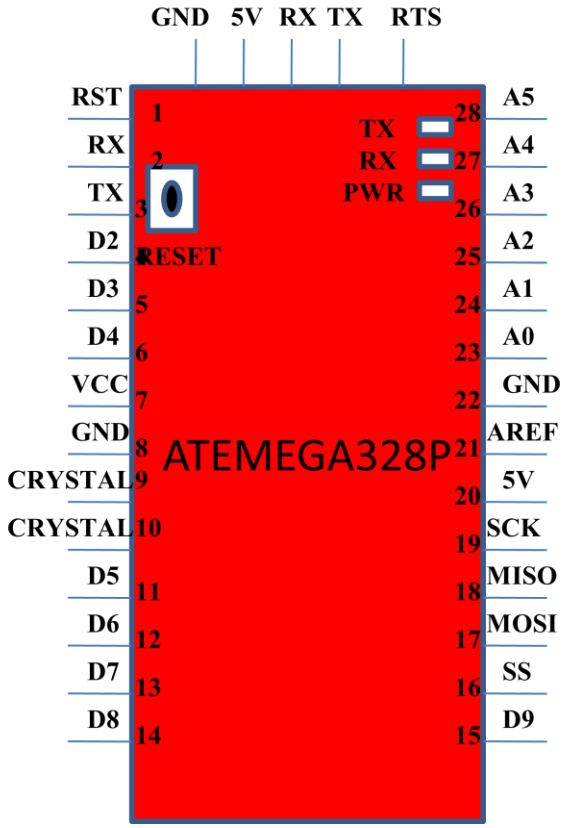
ATMEGA328P IC



FEATURES

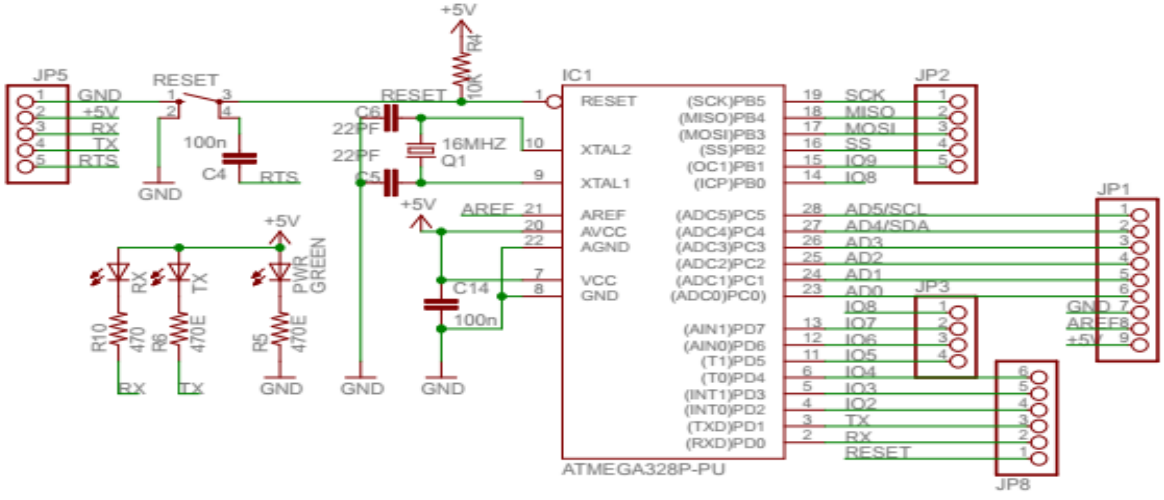
- Atmega328p- controller
- 14 digital I/O port RX, TX, D2~D13.
- 6 analog input port A0~A5.
- One pair of TTL RX/TX.
- 6 PWM terminal.
- Power indicating LED.
- Simple and convenient design for the hobbyist and developers.
- High speed bridge converting USB to Serial, serial to USB.
- Programmable with Arduino open source.

ATMEGA 328 PIN CONFIGURATION

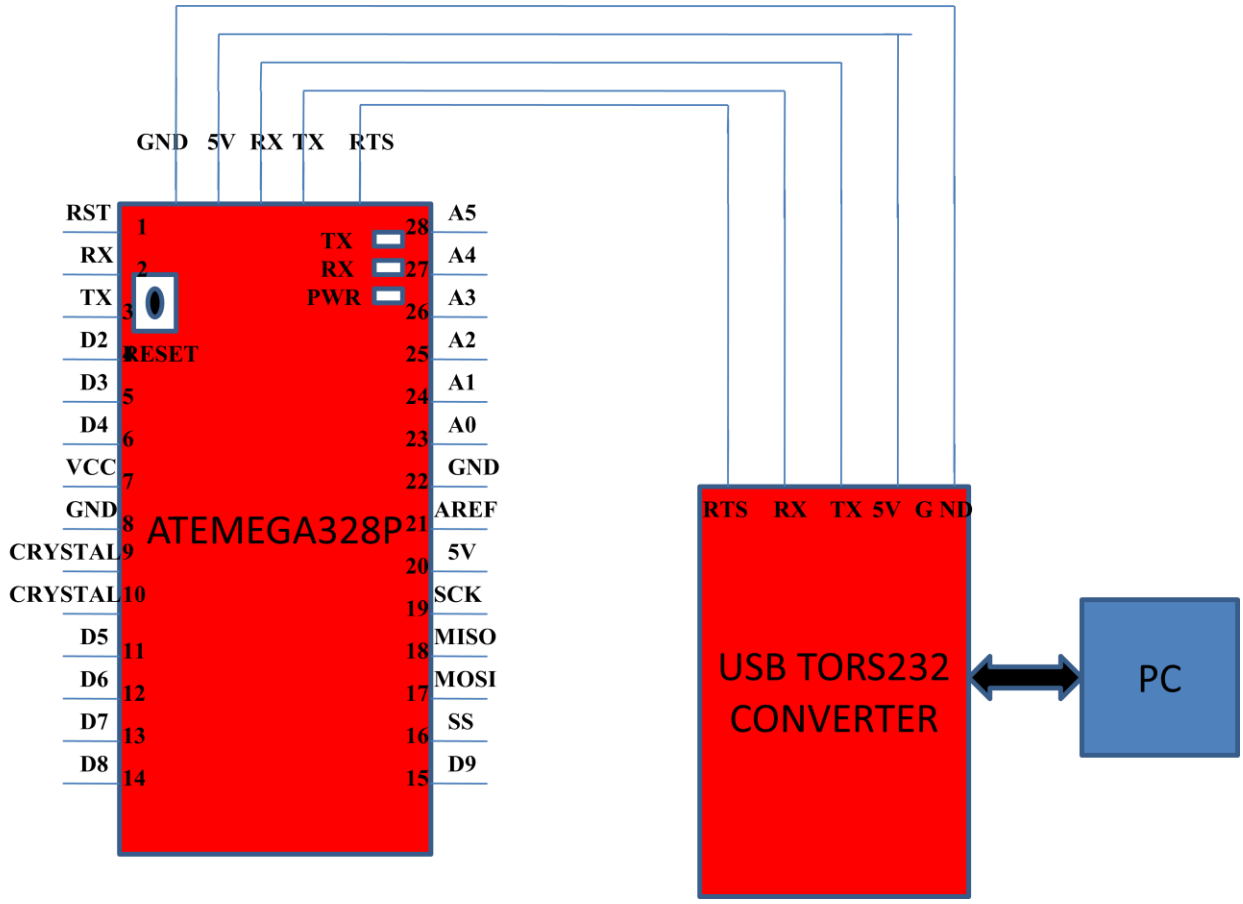


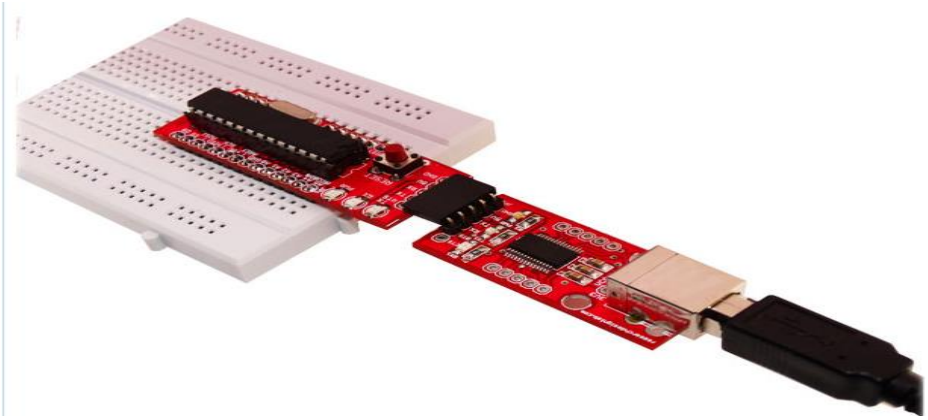
- Pin 28 to 23 are used as analog pins.
- Pin 3,5,6,11,10 are used for PWM.
- Pin 1 to 6 and 11 to 14 are used as digital pins.

UNO PLAY BREAD BOARD CIRCUIT DIAGRAM



CONNECTION DIAGRAM





ARDUINO CODE

```
int led1 = 0;
int led2 = 1;
int led3 = 7;
int led4 = 8;
// the setup routine runs once when you press reset:
void setup() {
// initialize the digital pins as output's.
pinMode(led1, OUTPUT);
pinMode(led2, OUTPUT);
pinMode(led3, OUTPUT);
pinMode(led4, OUTPUT);
digitalWrite(led1, LOW);
digitalWrite(led2, LOW);
digitalWrite(led3, LOW);
digitalWrite(led4, LOW);
delay(1000); // wait for a second
}
// the loop routine runs over and over again forever:
void loop() {
digitalWrite(led1, HIGH); // turn the LED on (HIGH is the voltage level)
delay(1000); // wait for a second
digitalWrite(led2, HIGH); // turn the LED on (HIGH is the voltage level)
delay(1000); // wait for a second
digitalWrite(led3, HIGH); // turn the LED on (HIGH is the voltage level)
delay(1000); // wait for a second
digitalWrite(led4, HIGH); // turn the LED on (HIGH is the voltage level)
delay(1000); // wait for a second
digitalWrite(led1, LOW); // turn the LED off by making the voltage LOW
delay(1000); // wait for a second
digitalWrite(led2, LOW); // turn the LED off by making the voltage LOW
delay(1000); // wait for a second
digitalWrite(led3, LOW); // turn the LED off by making the voltage LOW
delay(1000); // wait for a second
digitalWrite(led4, LOW); // turn the LED off by making the voltage LOW
delay(1000); // wait for a second
}
```

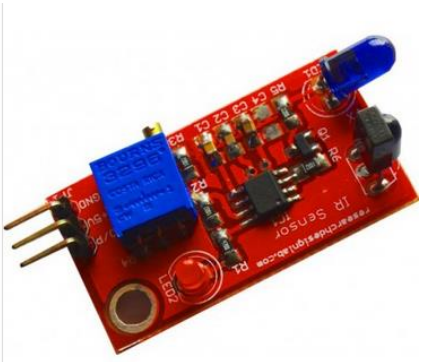
RELATED PRODUCTS

2X16 LCD

GSM SHIELD

DIGITAL HEART BEAT SENSOR

IR SENSOR



GAS SENSOR