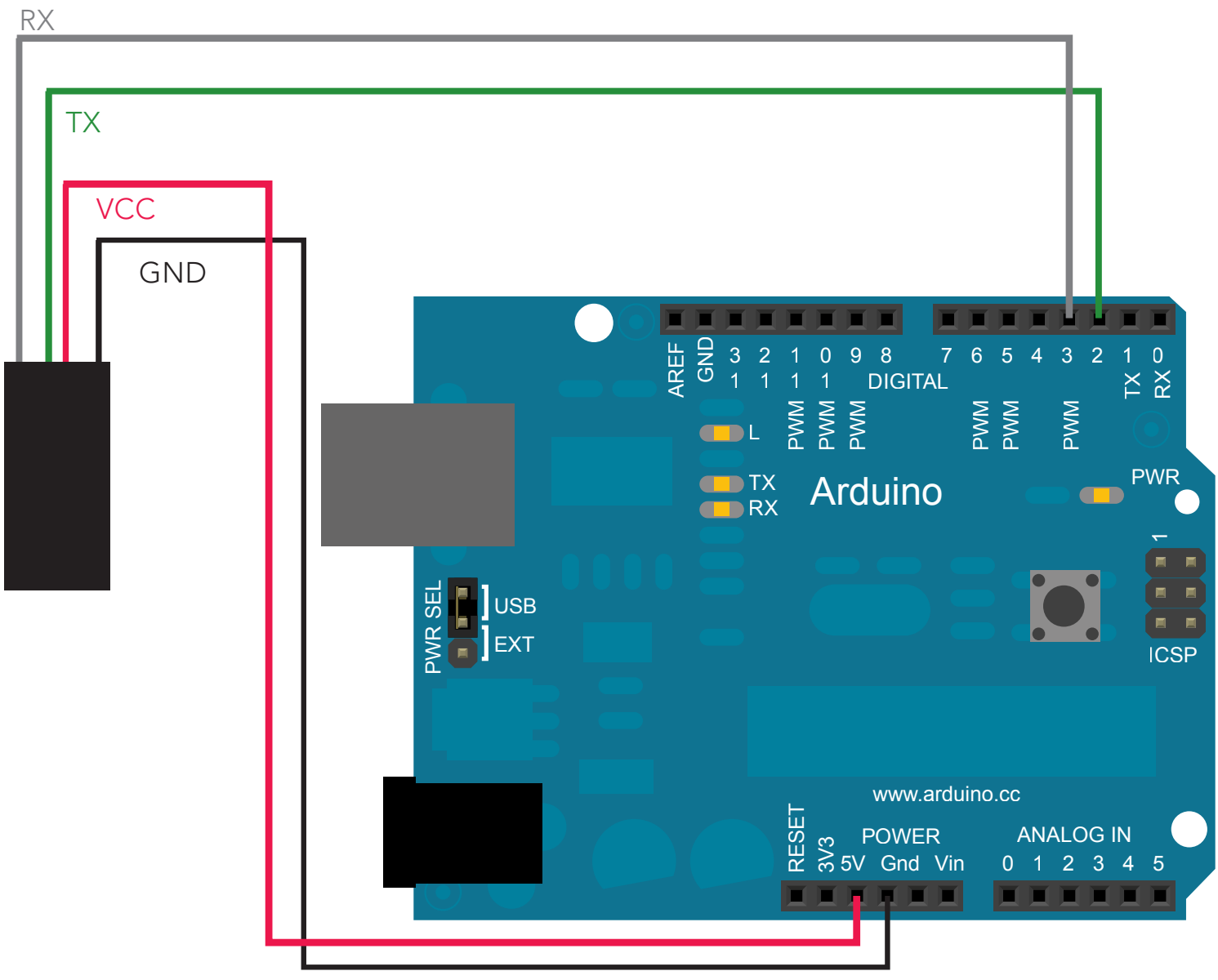
Atlas Scientific
Biology • Technology

Arduino Sample Code

EZ RGB

```
/*
This software was made to demonstrate how to quickly get your Atlas Scientific product running
on the Arduino platform.
An Arduino Duemilanove board was used to test this code.
This code was written in the Arudino 1.0 IDE
Modify the code to fit your system.
Code efficacy was NOT considered, this is a demo only.
The soft serial port TX line goes to the RX pin.
The soft serial port RX line goes to the TX pin.
Make sure you also connect to power and GND pins to power and a common ground.
Data is received and re-sent through the Arduinos hardware UART TX line.
Open TOOLS > serial monitor, set the serial monitor to the correct serial port and set the baud
rate to 38400.
Remember, select carriage return from the drop down menu next to the baud rate selection; not
"both NL & CR".
The data from the Atlas Scientific product will come out on the serial monitor.
Type in a command in the serial monitor and the Atlas Scientific product will respond.
*/
```




```
#include <SoftwareSerial.h>                  //add the soft serial library
#define rxpin 2                              //set the RX pin to pin 2
#define txpin 3                              //set the TX pin to pin 3


SoftwareSerial myserial(rxpin, txpin);       //enable the soft serial port


String inputstring = "";                     //a string to hold incoming data from the PC
String sensorstring = "";                    //a string to hold the data from the Atlas Scientific product
boolean input_stringcomplete = false;        //have we received all the data from the PC
boolean sensor_stringcomplete = false;       //have we received all the data from the Atlas Scientific
                                             //product


void setup(){                                //set up the hardware
    Serial.begin(38400);                     //set baud rate for the hardware serial port to 38400
    myserial.begin(38400);                   //set baud rate for software serial port to 38400
    inputstring.reserve(5);                  //set aside some bytes for receiving data from the PC
    sensorstring.reserve(30);                //set aside some bytes for receiving data from Atlas Scientific
    }                                        //product


void serialEvent() {                                          //if the hardware serial port receives a char
        char inchar = (char)Serial.read();                    //get the char we just received
        inputstring += inchar;                                //add it to the inputString
        if(inchar == '\r') {input_stringcomplete = true;}     //if the incoming character is a <CR>,
        }                                                     //set the flag


void loop(){                                 //here we go...

  if (input_stringcomplete){                 //if a string from the PC has been received in its entierty
     myserial.print(inputstring);            //send that string to the Atlas Scientific product
     inputstring = "";                       //clear the string:
     input_stringcomplete = false;           //reset the flag used to tell if we have received
     }                                       //a completed string from the PC


while (myserial.available()) {               //while a char is holding in the serial buffer
       char inchar = (char)myserial.read();  //get the new char
       sensorstring += inchar;               //add it to the sensorString
       if (inchar == '\r') {sensor_stringcomplete = true;}  //if the incoming character is a <CR>,
       }                                     //set the flag


if (sensor_stringcomplete){                  //if a string from the Atlas Scientific product has been
      Serial.print(sensorstring);            //received in its entirety
      sensorstring = "";                     //use the hardware serial port to send that data to the PC
      sensor_stringcomplete = false;         //clear the string:
     }                                       //reset the flag used to tell if we have received a completed
}                                            //string from the Atlas Scientific product
```

Click here to download the *.ino file