

Arduino Sample Code

EZ COM MEGA







This software was made to demonstrate how to quickly get your Atlas Scientific product running on the Arduino platform.

An Arduino MEGA 2560 board was used to test this code.

This code was written in the Arudino 1.0 IDE

Modify the code to fit your system.

Type in a command in the serial monitor and the Atlas Scientific product will respond.

The data from the Atlas Scientific product will come out on the serial monitor.

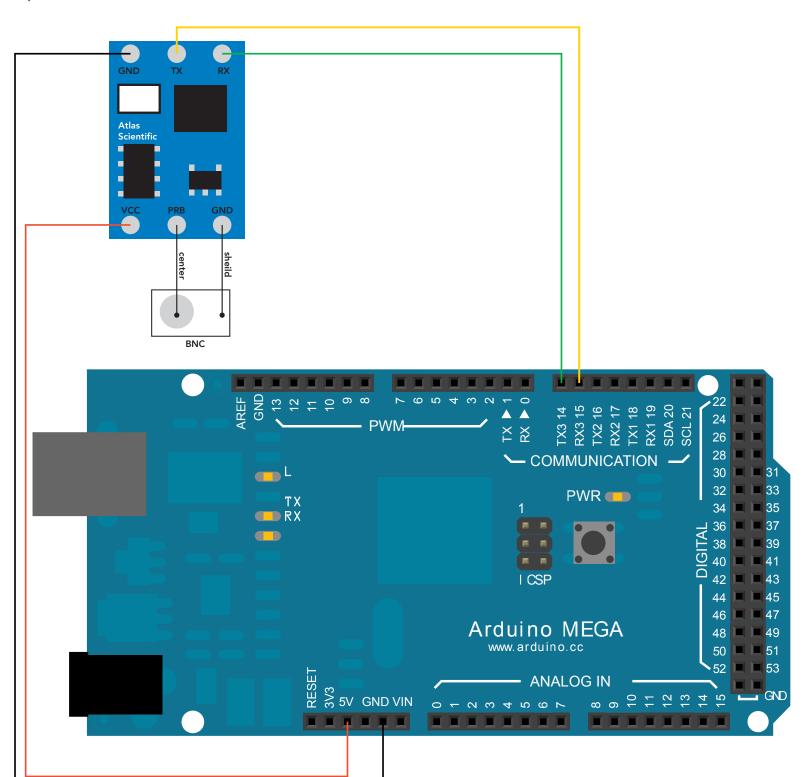
Code efficacy was NOT considered, this is a demo only.

The TX3 line goes to the RX pin of your product.

The RX3 line goes to the TX pin of your product.

Make sure you also connect to power and GND pins to power and a common ground. Open TOOLS > serial monitor, set the serial monitor to the correct serial port and set the baud

Remember, select carriage return from the drop down menu next to the baud rate selection; not "both NL & CR".



```
String inputstring = "";
String sensorstring = "";
boolean input_stringcomplete = false;
boolean sensor_stringcomplete = false;
```

//a string to hold incoming data from the PC
//a string to hold the data from the Atlas Scientific product //have we received all the data from the PC //have we received all the data from the Atlas Scientific //product

```
//set up the hardware
void setup(){
                                      //set baud rate for the hardware serial port_0 to 38400
  Serial.begin(38400);
                                      //set baud rate for software serial port_3 to 38400
  Serial3.begin(38400);
                                      //set aside some bytes for receiving data from the PC
  inputstring.reserve(5);
                                      //set aside some bytes for receiving data from Atlas Scientific
  sensorstring.reserve(30);
                                      //product
  }
```

```
void serialEvent() {
                                                              //if the hardware serial port_0 receives
         char inchar = (char)Serial.read();
                                                              //a char
         inputstring += inchar;
                                                              //get the char we just received
         if(inchar == '\r') {input_stringcomplete = true;}
                                                              //add it to the inputString
                                                              //if the incoming character is a <CR>,
        }
                                                              //set the flag
void serialEvent3(){
                                                              //if the hardware serial port_3 receives
        char inchar = (char)Serial3.read();
         sensorstring += inchar;
                                                              //get the char we just received
        if(inchar == '\r') {sensor_stringcomplete = true;}
                                                              //add it to the inputString
                                                              //if the incoming character is a <CR>,
        }
                                                              //set the flag
```

```
if (input_stringcomplete){
                                        //if a string from the PC has been received in its entierty
  Serial3.print(inputstring);
inputstring = "";
                                        //send that string to the Atlas Scientific product
                                        //clear the string:
  input_stringcomplete = false;
                                        //reset the flag used to tell if we have received a completed
                                        //string from the PC
  }
```

//here we go...

```
//if a string from the Atlas Scientific product has been
if (sensor_stringcomplete){
   Serial.println(sensorstring);
                                          //received in its entierty
   sensorstring = "";
                                          //send that string to to the PC's serial monitor
   sensor_stringcomplete = false;
                                          //clear the string:
                                          //reset the flag used to tell if we have received a
                                          //completed string from the Atlas Scientific product
}
```

void loop(){