```
1  /*
2   High Technology High School Robotics - MATE ROV
3   Kevin Risden 2009
4
5   Purpose:
6    Control topside electronics for underwater ROV.
7    * Takes input from 2 Joysticks
8    * Outputs axis and button states to serial at 9600 baud
9
10  Hardware:
11   1 - Arduino Nano
12   2 - Joysticks
13
14  Software:
15   None
16 */
17
18 //define joystick axis pins
19 #define xPin 0
20 #define yPin 1
21 #define zPin 2
22 #define TPin 3
23
24 //define top and trigger buttons
25 #define xyTopPin 3
26 #define xyTriggerPin 4
27 #define zTTopPin 5
28 #define zTTriggerPin 6
29
30 //declare input var for input
31 int input = 0;
32
33 //declare input pin arrays
34 int analogInputPins[4] = {xPin,yPin,zPin,TPin};
35 int digitalInputPins[4] = {xyTopPin,xyTriggerPin,zTTopPin,zTTriggerPin};
36
37 void setup() {
38   //open the serial port at 9600 bps
39   Serial.begin(9600);
40
41   //set digitalInputPins mode to Input
42   for(int i=0; i<4; i++){
43     pinMode(digitalInputPins[i], INPUT);
44   }
45 }
46
47 void loop() {
48   //read the analog input on pins 0-3
49   //analog pins 0-3 = inputs from joysticks
50   for(int i=0;i<4;i++) {
51     input = analogRead(analogInputPins[i]);
52     Serial.print(input); //echo input received (debugging)
53     Serial.print(" "); //echo space for readability (debugging)
```

```
54      }
55      //read the digital input on pins 0-3
56      //analog pins 0-3 = inputs from joysticks
57      for(int i=0;i<4;i++) {
58        input = digitalRead(digitalInputPins[i]);
59        Serial.print(input); //echo input received (debugging)
60        Serial.print(" "); //echo space for readability (debugging)
61      }
62      Serial.println(); //echo new line for next serial (debugging)
63    }
64
```