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1  /*
2  High Technology High School Robotics - MATE ROV
3  Kevin Ridsen 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 2
26 #define xyTriggerPin 3
27 #define zTopPin 4
28 #define zTriggerPin 5
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,zTopPin,zTriggerPin};
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     //delay 10 milliseconds
65     delay(10);
66 }
67
```