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#include "DualVNH5019MotorShield.h"

DualVNH5019MotorShield md;

byte PWM_PIN3 = 3; //Servo 2 is Arduino pin 3 is right stick, 14 is ground
byte PWM_PIN5 = 5; //Servo 3 is Arduino pin 5 is left stick (FWD 1991, CTR 1481,
BK 975)
byte PWM_PIN11= 11; // Run switch right (CH6) FWD975 CTR 1486 Back 1991
(not programmed yet)
byte PWM_PIN13 = 13; // Arm switch left front (CH7) UP Armed 1991 Down
Disarm 975

int pwm_value3; //these hold the values of the PWM signal
int pwm_value5;
int pwm_value11;
int pwm_value13;

void setup()
{
md.init();
pinMode(PWM_PIN3, INPUT); //set the pin as an input pin
pinMode(PWM_PIN5, INPUT);
pinMode(PWM_PIN11, INPUT);
pinMode(PWM_PIN13, INPUT);
Serial.begin(9600); //set the serial monitor baud rate to 9600
}

void loop(){
pwm_value3 = pulseIn(PWM_PIN3, HIGH); //these time the PWM signal from high
to low.
pwm_value5 = pulseIn(PWM_PIN5, HIGH);
pwm_value11= pulseIn(PWM_PIN11, HIGH);
pwm_value13= pulseIn(PWM_PIN13, HIGH);

Serial.println(pwm_value3); //print the values to the arduino Monitor
Serial.println(pwm_value5); //2000 is full stick forward, 1000 is full back, 1500 is
center
Serial.println(pwm_value11);
Serial.println(pwm_value13);

if (pwm_value13 > 1200) { // if the system is armed

    if (pwm_value3 > 1700) //if the PWM is above 1700 (right stick forward)
        {md.setM1Speed(400);} // (M1 is right stick) motor forward (M1)

    if (pwm_value3 < 1200) //if PWM is below 1200

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{md.setM1Speed(-400);} //move the actuator back

if (pwm_value3 < 1700 && pwm_value3 > 1200) //if PWM between 1200 an
1700
{md.setM1Speed(0);} //turn off actuator

if (pwm_value5 > 1700) // same for left actuator as above using (M2)
{md.setM2Speed(400);}

if (pwm_value5 < 1200)
{md.setM2Speed(-400);}

if (pwm_value5 < 1700 && pwm_value5 > 1200)
{md.setM2Speed(0);}
}
else //if the system is disarmend
{md.setM2Speed(0); //Stop the actuator
md.setM1Speed(0);} //Stop the actuator
}
```