

File: C:\Users\Adam\Documents\Robot\poe-sensors\Kalman_Practice Motor and Servo

```
#pragma config(Sensor, in1,    lineFollower,    sensorLineFollower)
#pragma config(Sensor, in2,    potentiometer,  sensorPotentiometer)
#pragma config(Sensor, in3,    lightSensor,    sensorReflection)
#pragma config(Sensor, dgtl1,  limitSwitch,    sensorTouch)
#pragma config(Sensor, dgtl2,  bumpSwitch,     sensorTouch)
#pragma config(Sensor, dgtl3,  quad,           sensorQuadEncoder)
#pragma config(Sensor, dgtl5,  sonar,          sensorSONAR_inch)
#pragma config(Sensor, dgtl12, green,            sensorLEDtoVCC)
#pragma config(Motor,  port2,    rightMotor,     tmotorVex393_HBridge, ope
#pragma config(Motor,  port1,    flashlight,     tmotorVexFlashlight, oper
#pragma config(Motor,  port9,    servoMotor,     tmotorServoStandard, oper
#pragma config(Motor,  port10,   leftMotor,      tmotorVex393_HBridge, ope
/*
Project Title: Motor and Servo practice program
Team Members: POE Curriculum Team
Date: Friday 10 Feb 2017
Task Description: Too long to type out
Pseudocode:
Repeat indefinitely:
Wait for bump
Motors spin half speed
led on
when light sensor above 700, spin servo
stop motors
wait 2 sec
motors spin reverse 2 sec half speed
wait 3 sec
when light sensor less than 400 set servo 120
motors off

*/
void allMotors (int speed){ //Little function I wrote a while ago to change the
    motor[leftMotor]=speed;
    motor[rightMotor]=speed;
}

task main()
{
    while (true) { //Keep going, and so we have a chance to press the button
        if (SensorValue[bumpSwitch]==1){ //Wait for button
            allMotors(63); //Half speed
            turnLEDOn(green); //Self-explanatory
            while (true){ //Again, keep going so we have a chance to trigger the light
                if (SensorValue[lightSensor]>700){
                    motor[servoMotor]=63; //Then set the servo to a value of 63 (half turr
                    allMotors(0);
                    wait1Msec(2000);
                    allMotors(-63); //Go backwards half speed
                    wait1Msec(3000);
                    while (true){ //Give a chance for light sensor to be uncovered
                        if (SensorValue[lightSensor]<400){
                            motor[servoMotor]=120;
                            allMotors(0);
                            break; //Get out of this while loop and continue
                        }
                    }
                }
            }
        }
    }
}
```

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```
        break; //Get out of this while loop to restart this program.  
    }  
}  
}  
}
```

