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#include <stdio.h>
#include "DHT.h"
#include "Servo.h"

const int basicServo1WritePin1 = 12;
const int humidityandTemperatureSensorRHT031ReadPin1 = 6;
const int tS2ReadPin1 = 3;
const int infrared850nmLED1WritePin1 = 2;
const int tS1ReadPin1 = 10;
const int infrared850nmLED2WritePin1 = 9;
const int basicServo2WritePin1 = 13;
const int red633nmLED1WritePin1 = 7;

int irLeft, irRight;
int humPin = 6;
int ledPin = 8;
float humThresh = 25.0;

void setup() {
    low(26);
    low(27);
    drive_setRampStep(12);
}

void loop() {
    dht22_read(humPin);
    float humidity = dht22_getHumidity();
    humidity = humidity / 10.0;
    float temp = dht22_getTemp(CELSIUS) / 10.0;
    if(temp > humThresh) {
        high(ledPin);
    } else {
        low(ledPin);
    }
    freqout(11, 1, 38000);
    irLeft = input(10);
    freqout(1, 1, 38000);
    irRight = input(2);
    if(irRight == 1 && irLeft == 1) {
        drive_rampStep(128, 128);
    } else if(irLeft == 0 && irRight == 0) {
        drive_rampStep(-128, -128);
    } else if(irRight == 0) {
        drive_rampStep(-128, 128);
    } else if(irLeft == 0) {
        drive_rampStep(128, -128);
    }
}

void myPrintf(float fVal)
{
    char result[100];
    int dVal, dec, i;

    fVal += 0.005;

    dVal = fVal;
    dec = (int)(fVal * 100) % 100;

    memset(result, 0, 100);
    result[0] = (dec % 10) + '0';

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    result[1] = (dec / 10) + '0';
    result[2] = '.';

    i = 3;
    while (dVal > 0)
    {
        result[i] = (dVal % 10) + '0';
        dVal /= 10;
        i++;
    }

    for (i=strlen(result)-1; i>=0; i--) {
        putc(result[i], stdout);
    }
}

int input(int pin) {
    // TODO: complete method
}

int dht22_getHumidity() {
    // TODO: complete method
}

char dht22_read(int dht_pin) {
    // TODO: complete method
}

void low(int pin) {
    // TODO: complete method
}

int dht22_getTemp(char temp_units) {
    // TODO: complete method
}

void drive_setRampStep(int stepsize) {
    // TODO: complete method
}

void freqout(int pin, int msTime, int frequency) {
    // TODO: complete method
}

void drive_rampStep(int left, int right) {
    // TODO: complete method
}

void high(int pin) {
    // TODO: complete method
}

```