

```

#include "abdrive.h"
#include "dht22.h"
#include "simpletools.h"

int irLeft, irRight;

int humPin = 6;
int ledPin = 8;
float humThresh = 25.0;

int main()
{
    low(26);
    low(27);

    drive_setRampStep(12);

    while(1)
    {

        dht22_read(humPin);
        float humidity = dht22_getHumidity();
        humidity = humidity / 10.0;
        float temp = dht22_getTemp(CELSIUS) / 10.0;
        myPrintf(humidity);
        putchar('\n');
        myPrintf(temp);
        putchar('\n');

        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);
    }
}

// https://stackoverflow.com/questions/23191203/convert-float-to-string-  
without-sprintf
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';
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);
}

}
```