```c
#include <stdio.h>
#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;
```

```c
        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);
        }
}
```