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开源硬件实战双创感想

一.第一天 入门介绍

1.创建github账号

2.安装arduino、fritzing、processing

二.第二天 软件操作（arduino编程）

Morse代码

#include <morse.h>

Morse morse(13);

int input=0;

void setup() {

// put your setup code here, to run once:

Serial.begin(9600);

}

void loop() {

// put your main code here, to run repeatedly:

if(Serial.available()>0){

input=Serial.read();

switch(input){

case 'A':

morse.dot();

morse.dash();

morse.c\_space();

break;

case 'B':

morse.dash();

morse.dot();

morse.dot();

morse.dot();

morse.c\_space();

break;

case 'C':

morse.dash();

morse.dot();

morse.dash();

morse.dot();

morse.c\_space();

break;

case 'D':

morse.dash();

morse.dot();

morse.dot();

morse.c\_space();

break;

case 'E':

morse.dot();

morse.c\_space();

break;

case 'F':

morse.dot();

morse.dot();

morse.dash();

morse.dot();

morse.c\_space();

break;

case 'G':

morse.dash();

morse.dash();

morse.dot();

morse.c\_space();

break;

case 'H':

morse.dot();

morse.dot();

morse.dot();

morse.dot();

morse.c\_space();

break;

case 'I':

morse.dot();

morse.dot();

morse.c\_space();

break;

case 'J':

morse.dot();

morse.dash();

morse.dash();

morse.dash();

morse.c\_space();

break;

case 'K':

morse.dash();

morse.dot();

morse.dash();

morse.c\_space();

break;

case 'L':

morse.dot();

morse.dash();

morse.dot();

morse.dot();

morse.c\_space();

break;

case 'M':

morse.dash();

morse.dash();

morse.c\_space();

break;

case 'N':

morse.dash();

morse.dot();

morse.c\_space();

break;

case 'O':

morse.dash();

morse.dash();

morse.dash();

morse.c\_space();

break;

case 'P':

morse.dot();

morse.dash();

morse.dash();

morse.dot();

morse.c\_space();

break;

case 'Q':

morse.dash();

morse.dash();

morse.dot();

morse.dash();

morse.c\_space();

break;

case 'R':

morse.dot();

morse.dash();

morse.dot();

morse.c\_space();

break;

case 'S':

morse.dot();

morse.dot();

morse.dot();

morse.c\_space();

break;

case 'T':

morse.dash();

morse.c\_space();

break;

case 'U':

morse.dot();

morse.dot();

morse.dash();

morse.c\_space();

break;

case 'V':

morse.dot();

morse.dot();

morse.dot();

morse.dash();

morse.c\_space();

break;

case 'W':

morse.dot();

morse.dash();

morse.dash();

morse.c\_space();

break;

case 'X':

morse.dash();

morse.dot();

morse.dot();

morse.dash();

morse.c\_space();

break;

case 'Y':

morse.dash();

morse.dot();

morse.dash();

morse.dash();

morse.c\_space();

break;

case 'Z':

morse.dash();

morse.dash();

morse.dot();

morse.dot();

morse.c\_space();

break;

}

}

}

库函数

#define \_MORSE\_H

class Morse

{

public:

Morse(int pin);

void dot();

void dash();

void c\_space();

void w\_space();

private:

int \_pin;

int \_dottime;

};

#endif /\*\_MORSE\_H\*/

三.第三天 元器件及电路图

1.小车代码和电路图

void setup()

{

pinMode(5, OUTPUT);

pinMode(6, OUTPUT);

pinMode(9, OUTPUT);

pinMode(10, OUTPUT);

Serial.begin(9600);

}

int income=0;

void loop()

{

if(Serial.available()>0)

{

income=Serial.read();

switch(income)

{

case 'f':

forward();

break;

case 'b':

backward();

break;

case 'l':

left();

break;

case 'r':

right();

break;

case 's':

stop();

break;

default:

break;

}

}

}

void forward()

{

digitalWrite(5,HIGH);

digitalWrite(6,LOW);

digitalWrite(9,HIGH);

digitalWrite(10,LOW);

}

void backward()

{

digitalWrite(6,HIGH);

digitalWrite(5,LOW);

digitalWrite(10,HIGH);

digitalWrite(9,LOW);

}

void left()

{

digitalWrite(5,HIGH);

digitalWrite(6,LOW);

digitalWrite(10,HIGH);

digitalWrite(9,LOW);

}

void right()

{

digitalWrite(6,HIGH);

digitalWrite(5,LOW);

digitalWrite(9,HIGH);

digitalWrite(10,LOW);

}

void stop()

{

digitalWrite(5,LOW);

digitalWrite(6,LOW);

digitalWrite(9,LOW);

digitalWrite(10,LOW);

}

2.数码管代码和电路图

四.总结

1.莫尔斯代码tinkercad可运行代码；

2.merkdown格式学习总结