#include <esp8266_seniverse.h></esp8266_seniverse.h>		Serial.printC"maxPathLength:	"\nBlock5ize:" + 5tring(Fla	while (FileDirectory.nextO) {	String path;	void createFileC5tring fileName)
#include <hash.h></hash.h>	Dir FileDirectory = LittleF5.op	">;	sh_info.blockSize) + "\nPageSize) (
	enDir(path);	Serial.println(Flash_info.max	:"+String(Flash_info,pageSize);	FlashlistDirectory += path +	if (filePath == "")		
#include <stack></stack>		PathLength);	>	FileDirectory.fileNameO + "\n";	path = WorkingDirectory + fi	String path = WorkingDirector	void removeDirector(String dir
				>	leName;	y + fileName;	Name, String dirPath = "") {
#include "filent.h"	while (FileDirectory.nextO) {				else		String path;
#include "OLED.h"		Serial,print("maxOpenFiles: ")	String getWorkDirectory() { re	return FlashlistDirectory;	path = filePath;	LittleF5.begin <mark>O</mark> ;	
#include "Tool.h"	String entryPath = path + "	1	turn WorkingDirectory; })			if (dirPath == "")
#include "Universal.h"		Serial.printlnCFlash_info.max			LittleF5.begin <mark>O</mark> ;	File dataFile;	path = WorkingDirectory + di
#include "Web5erver.h"		OpenFiles);				dataFile = LittleF5.open(path.	
	if (LittleF5.exists (entryPat		void backDinectoryO €	String readFileCString fileName,	File dataFile;	c_strO,"w");	else
ESP8266WebServerserver(Serv				String filePath = "") {			path = dirPath;
erPort);	deleteFolder(entryPath);	Serial.print("block5ize: ");	if (WorkingDirectoryStack.em	String path;	if (LittleF5,exists(path)) {	dataFile.println("");	
		Serial,println(Flash_info.bloc			dataFile = LittleFS,openCpat	dataFile.closeO;	LittleF5.begin();
filERT alert;	}else{	k5ize);	WorkingDirectory = Working	if (filePath == "")	h.c_strO _i "a");	3	
OLED oled;	LittleFS.removeCentryPat	Notation 1	DirectoryStack.topO;	path = WorkingDirectory + fi			deleteFolder(path);
HTTPClient http;	h);		WorkingDirectoryStack.popC		dataFile = LittleF5,openCpat		3
WiFiClient client;	3	Serial.print("pageSize: "););	else	h.c_strO, "w");	void makeDirector(String dirNa	
TOOL tool;	3	Serial,println(Flash_info,pag	7	path = filePath;	3	me) {	
Ticker TimeRefresh_ticker;	,	eSize);	3	Paul - Iker auli	•	ney C	void copyFile(String sourceFile
Ticker System_time;	LittleF5,rmdir(path);	2	•	LittleF5.begin O ;	dataFile.print(text);	String nath - UonkingDinecton	Path, String targetFilePath, bool
Ticker Desktop_ticker;	3	-		Littler Sibegii (O)	dataFile.closeO:	y + dirName;	moveMode = false) {
Ticker CMDControlPanel_ticker;	*		void changeDirectoryC5tring p	File dataFile:	alar kelotoseoj	g + diritane,	LittleF5.beginO;
	an delian	un sissed also Busenstins s	ath) (•	*	LittleF5.beginO;	Littler Sibegiil Cy
Ticker WIFI_Test;	public:	unsigned char Proportion = statio_cast <unsigned char=""></unsigned>	amot	String File_Info = "";		Littler S.beginto,	File source = LittleF5,open(so
	String getFlash_infoO {	CroundCCstatic_castCfloat>CFlas	WorkingDirectoryStack.pushC	if (LittleFS evictofeath elicter)	void fileCover(String text, Strin	LittleF5.mkdir(path.o_str());	urceFilePath, "r");
hool Changing, State = falco!))){	g fileName, String filePath = "") (File target = LittleF5.openCtar
bool Charging_State = false;	LittleF5.begin(); LittleF5.info(Flash_info);	h_info.usedBytes)	path);			>	
bool WIFI_State = false;	Littler J.InfoCr (asn_info);		Hankin - Dinantanu - nathi	File dataFile = LittleF5.openC	otning pathi		getFilePath, "w");
bool Developer_Mode = false;		State - Proceeding Process	WorkingDirectory = path;	path.c_strO, "r");	14 740 - P - M	hard and see Ella Coloria a Cilabiana	
bool allowResponse = true;		String ProportionBar = "[*		if (filePath == "")	bool removeFileC5tring fileName	
bool allowDownloadMode = true;	C	1";		odello Adodorno confichica	path = WorkingDirectory + fi		这段代码将从源文件 source 读
bool freezeMode = false;	Serial.print("totalBytes: ");	for Cunsigned char i=1;i <st< td=""><td></td><td>while (dataFile.available())</td><td>•</td><td>String path;</td><td>取的数据写入目标文件 target。</td></st<>		while (dataFile.available())	•	String path;	取的数据写入目标文件 target。
bool diskMode = false;	Serial,print(Flash_info,totalB				else	2000 0 11 110	它通过使
L LOWDON SI L S.L.	ytes);	roportion); ++i) ProportionBar[i]		File_Info += (char)dataFil	path = filePath;	if (filePath == "")	用 source.available〇 方法来检查
bool CMDCP_State = false;	Serial.println("Bytes");	= '='1		e.readO;			源文件是否还有未读取的数据,并使
			String path = WorkingDirector	}	LittleF5.begin <mark>O</mark> ;	leName;	用 target.write(source.read())
class FlashFile5ystem (e		91	1.1.111.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.	P-1 1 P-1 .	else	方法将读取的数据写入目标文件。
private:	Serial.print("usedBytes: ");	return "Flash Info (Bytes)\n		dataFile.closeO;	File dataFile;	path = filePath;	这段代码的前提是: 源文件
F5Info Flash_info;		Total:" + String(Flash_info.totalB) else (1-1-P1- 1111 P2- 2 11	Lauren	source 和目标文件 target 已经打
Dir FileDirectory;	ytes);	ytes) + "\nUsed: " + 5tring(Flash		File_Info = "IFLASH FILE NO	dataFile = LittleF5.openCpath.	LittleF5.begin <mark>O</mark> ;	₩.
	Serial.println("Bytes");	_info.usedBytes) + "\n" + Propor	LittleF5.beginO;	T FOUND3: " + path;	c_strO, "u");		×
stack<5tring>WorkingDirectory		tionBar +)			if (source && target) (
Stack;		String(Proportion) + "%\n		return File_Info;	dataFile,print(text);	if (LittleF5,remove(path.c_st	while (source.available()) {
String WorkingDirectory = "	Serial.print("Proportion: ");	MaxPathLength:"+String(Flash_i	_)	dataFile.closeO;	rODE	target.urite(source.read
	Serial.print(Proportion);	nfo.maxPathLength) + "\nMaxOpe	ir <mark>(path</mark> .c_str <mark>O)</mark> ;)	return true;	O);
	Serial.println(" %");	nFiles:" + String(Flash_info.max0				Felse (•
void deleteFolderC5tring path)		penFiles) +	String FlashlistDirectory = "";			return false;)
C				ng fileName, String filePath = "") {)	

source,close();	径)和 fileName (特查找文件名称)。	foundFile += findFiles(dir	unsigned char second = 0;	month = statio_cast <unsigne< th=""><th>if ChttpCode == HTTP_CODE_</th><th>return String(sysTime.year</th><th></th></unsigne<>	if ChttpCode == HTTP_CODE_	return String(sysTime.year	
target.closeO;	读函数执行以下步骤 :	Path + dir.fileNameO + "		d char>CnetWorkTimeStr.substrin	0K > €) + format(sysTime.month) + form	if CIndex.name == loading_X16
		}else €		gC4, 60,toIntO);	netWorkTimeStr=http.get	at(sysTime.day) + format(sysTim	_30F.name) (
if (moveMode) LittleF5.remove	启动闪存文件系统	String foundName = dir.file	void updateTimeO {	day = statio_cast <unsigned< td=""><td>StringO;</td><td>e.hour) + format(sysTime.minute)</td><td>for Cunsigned short i = Begi</td></unsigned<>	StringO;	e.hour) + format(sysTime.minute)	for Cunsigned short i = Begi
(sourceFilePath.c_strO);	打开目录 dirPath	NameO;	second++;	char>CnetWorkTimeStr.substring		+	n; i < End; ++i0 €
3	循环读取目录中的所有文件	vector<5tring> foundNam	if Csecond >= 60) {	(6, 8).toInt();		format(sysTime.second);	oled.OLED_DrawBMPCPos.x,
	a. 如果读取的是目录,递归调用该	e_Split = oled.strsplitCfoundName	second = 0;	hour = statio_castKunsigne	StaticJsonDocument(200))	Pos.y, Index.IMG_Width, Index.IMG
	函数,并将其结果加入 foundFile 字	, "," <mark>"</mark> ;	minute++;	d char>CnetWorkTimeStr.substrin	doc;	>	_Hight, Loading_X16_30FCID;
void copyDirC5tring sourceDirF	符串。		3	g(8, 10).toInt();	deserializeJson <mark>C</mark> doc <mark>, netW</mark>		delayC5leep_ms);
ath, String targetDirPath, bool mo	b. 如果读取的是文件:	if CtargetName[0] == "×" &	if Cminute >= 600 {	minute = static_castKunsign	orkTime5tr);	3 timeRef;	3
veMode = false) {	i. 以"."分割该文件的文件名,以得到	&targetName[1]=="×"){	minute = 0;	ed.char>CnetWorkTimeStr.substri)
LittleF5.beginO;	其扩展名。		hour++;	ngC10, 12).toIntO);	netWorkTimeStr=doc["sy	typedef struct fINIM_INDEX {	if CIndex.name == loading_X16
	ii.比较待查找文件名和该文件的文件	foundFile += dirPath + fo	3	second = static_castKunsig	sTime1"las<5tring>O;	unsigned short name;	_60F.name) {
if C!LittleF5.existsCsourceDir	콥:	undName + "\n";	if Chour >= 24) {	nedchar>CnetWorkTime5tr.subst		unsigned short Duration;	for Cunsigned short i = Begi
Path30 return;	如果待查找文件名为".",说明查找		hour = 0;	ringC12,140.toIntO);	sysTime.set5ystemTime(ne	unsigned short Begin;	n; i < End; ++i0 €
if C!LittleF5.existsCtargetDirP	所有文件,不进行筛选。	<pre>} else if (targetName[0] ==</pre>	day++;)	tWorkTime5tr);	unsigned short End;	oled.OLED_DrawBMPCPos.x,
ath>>> LittleF5.mkdirCtargetDirPat	如果待查找文件名为"×.txt",说明	"×" && targetName[1]!= "×") €	3			unsigned char IMO_Width;	Pos.y, Index.IMG_Width, Index.IMG
h);	查找所有扩展名为"t×t"的文件,按扩			3 SystemTime;		unsigned char IMO_Hight;	_Hight, Loading_X16_60F[i]);
	展名筛选。	if CfoundName_Split[1] =	unsigned char daysInMonth		}else {	3 ANIM_INDEX;	delay <mark>C5leep_ms);</mark>
Dir sourceDir = LittleF5.open[如果待查找文件名为"a.txt",说明	= targetName[1]) foundFile += dir	=31;	SystemTime sysTime;	Serial printfC"[HTTP GET F)
in(sourceDinPath);	查找文件名为"a.txt"的文件,按文件	Path + foundName + "\n";	if Cmonth == 2) {	String netWorkTimeStr = "";	ailed] EnronCode: %s\n", http.enn		>
	名筛选。				orTo5tring(httpCode).c_str();	class finimation (if CIndex.name == loadingBack
	返回找到的文件路径列表(存储在	}elseif(targetName[0]!=	daysInMonth = (year % 40	bool allow = false;	3	private:	ForthBar_60x8_60F.name) {
while (sourceDir.next(O) (foundFile 字符串中)	"×" && targetName[1]!= "×") {	0 == 0 (year % 4 == 0 && year % 1		} else {	ANIM_INDEX Index;	for Cunsigned short i = Begi
	注:		00 = 000 ? 29 : 28;		Serial.printf C"[HTTP GET Fai		n; i < End; ++i) (
String sourceFilePath = sou		if CfoundName == fileNam	else if Cmonth == 4 month	void beginO {	led] ErrorCode: %s\n", http.erro	POINT Pos = {0, 0};	oled.OLED_DrawBMPCPos.x,
rceDirPath+"		e) foundFile += dirPath + foundNa			rTo5tring(httpCode).o_str());	unsigned short Duration = UINT	Pos.y, Index.IMG_Width, Index.IMG
String targetFilePath = targ		me + "\n";	daysInMonth = 30;	TimeRefresh_ticker.attachC6		16_MIN;	_Hight, LoadingBackForthBar_60
etDirPath+"	LittleF5.openDirCdirPath)是打开)	00, [this]Cvoid) -> void (http.endO;	unsigned short Begin = UINT16_	_
	目录的函数。	•)	MAX;	delayC5leep_ms);
	dir.nextO是读取下一个文件	•		if (freezeMode == true) Tim		unsigned short End = UINT16_MI	•
if (sourceDir.isDirectory()	×		if Cday > daysInMonth) {	eRefresh_ticker.detachO;		N;	3
) (return foundFile;	day=1;		String formatCunsigned char ti		if CIndex.name == loadingBar_
	String findFilesC5tring dirPath,	3	month++;	if CdigitalReadC5ENOUT) == H			60x8_30F.name) (
argetFilePath, moveMode);	String fileName) (A EE 1 . C.	if Cmonth > 12> C	IGH) allow = true;	if CtimeInt < 100 {	void finimController() {	for Cunsigned short i = Begi
} else {	String foundFile = "";) FFileS;	month = 1;	D;	return "0" + 5tring(timeInt);		n; i < End; ++i) {
copyFileCsourceFilePath,			year++;		} else {	if CDuration == UINT16_MIND D	oled.OLED_DrauBMPCPos.x,
targetFilePath, moveMode);		alana Tina Badasa da G	,	Southern the attack of Fibrica.	return 5tringCtimeInt);	uration = Index.Duration;	Pos.y, Index.IMG_Width, Index.IMG
	<pre>vector<5tring> targetName = oled.strsplitCfileName, ".");</pre>		· ·	System_time.attachC1, [this]Cv oid) -> void { sysTime.updateTime(_Hight, LoadingBar_60x8_30F[i]); delay(5leep_ms);
	otedistr-spatchtenane, 1.7,	public:	•			n = Index.Begin; if CEnd == UINT16_MIND End = I	}
if (moveMode) deleteFolder(s	LittleF5.begin <mark>()</mark> ;	typedef struct SystemTime (2(32)		ndex.End;	3
ourceDirPath);	Livier ordesiron	species an docognitive C	void set5ystemTimeC5tring net	•	String timeReadCbool mode = tru	resident Mj	if CIndex.name == loadingBar_
3	Dir dir = LittleF5.openDir(dirP	unsigned short year = 0;	WorkTimeStr) (e) (60x8_60F.name) (
-	ath);	unsigned char month = 0;	year = static_castKunsigne	void getNetWorkTime() {	if (mode == true) {	unsigned long Sleep_ms = stat	for Cunsigned short i = Begi
		unsigned char day = 0;	d short>CnetWorkTimeStr.substri	uint8 httpCode = http://ETO;		ic_castKunsigned longXstatic_c	
这段代码是一个查找文件的函数。该	while (dir.nextO) {	unsigned char hour = 0;	ng(0, 4).toInt(O);	if (httpCode > 0) {	r) + ":" + format(sysTime.minute);		· ·
函數接收两个参数: dirPath C目录路		unsigned char minute = 0;	- •) else (

oled.OLED_DrawBMP(Pos.x,	oled.OLED_DrawBMPC32, 0, 32, 6		Icon_RegisterC5BR.WIFI, tru	Desktop_ticker.attach_ms(50	delay(1000);		"\nRXD=" + StringCdigitalReadCRX
Pos.y, Index.IMG_Width, Index.IMG	4,FireWarning_32x64[1]);	for Cauto& i : 5BR.StatusBar	e);	0, [this](void) -> void {	oled.OLED_DrawBMP(0, 0, 128,	class SystemSleep {	DDD +
_Hight, LoadingBar_60x8_60F[i]);	oled.OLED_DrawBMPC64, 0, 32, 6	s_Pos)) else (64,Charging_IMG);	private:	"\nSCL=" + StringCdi
delay(Sleep_ms);	4, FireWarning_32x64[2]);	if (i > 5BR.5tatusBars_Pos	Icon_RegisterC5BR.WIFI, fal	if (freezeMode == true) Des	delay(1000);	public:	gitalRead CSCL>> + "\nSDR=" + Stri
3	oled.OLED_DrawBMPC96, 0, 32, 6	[name]) i == 5BR.unit;	se);	ktop_ticker.detachO;	oled.OLED_Clear();		ngCdigitalReadC5DR)) + "\nCHRG=
>	4, FireWarning_32x64[3]);		3		Main_Desktop();	String GPIO_ReadO ("+ String(digitalRead(CHRG))+
)				×		"\nLOWPOWER=" + Str
3		for Cunsigned char i = SBR.5		if CdigitalReadC5ENOUT) == H	} else if (digitalRead(CHRG) == H	int decoderC = digitalReadCDe	ingCdigitalReadCLOWPOWER>> + "\n
	class Desktop (tatusBars_Pos[name];i<=112;i+	if (digitalRead(0) == LOW) {	IGH && Developer_Mode == false)	IGH && Charging_State == true) {	coder_C);	SENOUT="+StringCdigitalReadCSE
public:	private:	= SBR.unit) oled.OLED_DrawBMPCi,	Icon_Register(5BR,Program	•	Charging_State = false;	int decoderB = digitalReadCDe	NOUT>> + "\nDecoder_C=" + Strin
		6, 16, 16, StatusBars[SBR.Clear_I)	coder_B);	g(decoderC)+
	typedef struct StatusBars_Ra		}else {	if CtimeRef.sysTime.second	}	int decoderfi = digitalRead(De	"\nDecoder_B="+5t
fiNIM_INDEX loading_X16_30F =				== 0) oled.OLED_ShowString(4, -		coder_fi);	ring(decoderB) + "\nDecoder_fl
(0, 250, 0, 30, 16, 16);	unsigned char unit = 16;	SBR:StatusBars_Pos[name]		1, timeRef.timeReadO.o_strO.49)		2.07	="+5tring(decoderfl)+decoded
ANIM_INDEX loading_X16_60F =	ansigned offer anti- 20	=0;	3	i and the feature of the second of the secon	void ProgramDownloadModeO {		With:
(1,500,0,60,16,16);		- 01			Void i i ogi anboarkoadriodeto t	String decodedWith = "\nDeco	return GPIO_State;
ANIM_INDEX loadingBackForthB	bool Register_State[8] = (fal) else if Cmode == true && SBR.		StatusBars_RenderO;	if (digitalRead(Decoder_C) == L		return of to_state;
			14 CUTET 51-1 4-1> C	3 tatusbars_rieliderO ₁			*
		Register_State[name] == false) {		_	OW && allowDownloadMode == true	switch (decoderC << 2 decod	
);	e, false, false);	CDD D	Icon_RegisterC5BR.Disconn));	&& freezeMode == false) (erB << 1 decoderfi) {	
finim_INDEX loadingBar_60x8_3		SBR.Register_State[name] =		*	bool allowReset = true;	case 1:	String getSysModefindStatusC
0F = (3,300,0,30,60,8);		true;) else {			decodedWith += "Buzzer_	
finim_index loadingBar_60x8_6	int StatusBars_Pos[8] = {-		Icon_RegisterC5BR.Disconn			Enable";	return "Charging_State="+5
0F = (4,500,0,60,60,8);	16, -16, -16, -16, -16, -16, -		ected, false);	void Main_DesktopO {	oled.OLED_DrauBMPC0, 0, 128,	break;	tring(Charging_State) + "\nWIFI
	16);	SBR.StatusBars_Pos[name])	oled.OLED_ShowStringC4, -	48, DownloadMode_IMGO;	case 2:	_State="+String(WIFI_State)+"
		= tool.findfirrMaxC5BR.StatusBar		1, timeRef.timeReadO.c_strO, 49)		decodedWith += "RedLED_	\nDeveloper_Mode="+5tringCDe
		s_Pos, 8) + 5BR.unit;		i		Enable";	veloper_Mode) +
void setfinimationCu8 x, u8 y, u16	unsigned char Clear_Icon = 6;)	if (Charging_State == false) {	StatusBars_RenderO;	anim.setfinimationC112, 6, 400);	break;	"\nallowResponse=" + 5tri
duration = UINT16_MIN, u16 begin			Icon_Register(5BR,Battery,			case 3:	ngCallowResponse) + "\nallowDo
= UINT16_MAX, u16 end = UINT16_	unsigned char Charging = 0;	if (mode == true) {	true);)		decodedWith += "GreenLE	unloadMode="+StringCallouDoun
O CNIM	unsigned char WIFI = 1;	oled.OLED_DrawBMPCSBR.Sta) else () Desktop;	for Cu8 i = 0; i < 6; ++i) €	D_Enable";	loadMode) + "\nfreezeMode=" +
Pos = (x, y);	unsigned char ProgramDownl	tusBars_Pos[name], 6, 16, 16, 5tat	Icon_RegisterC5BR.Battery,		anim.runfinimationCanim.loadi	break;	String(freezeMode)+
Duration = duration;	oad = 2;	usBars[name]);	false);		ng_X16_60F);	case 4:	"\ndiskMode=" + StringCdis
Begin = begin;	unsigned char Disconnected	3	>	void 5how_Charging_info○ €	if C digitalRead <mark>(0) == HIGH) {</mark>	decodedWith += "BlueLED_	kMode);
End = end;	= 3;)		if (digitalRead(CHRG) == LOW &&	oled.OLED_DrawBMPC112,6	Enable";)
>	unsigned char Battery = 4;			Charging_State == false) {	, 16, 16, Loading_X16_60F[60]);	break;	
	unsigned char CMDCP = 5;		if (CMDCP_State == true) {	Charging_State = true;	allowReset = false;	case 6:	
		void StatusBars_RenderO (Icon_RegisterC5BR.CMDCP, t			decodedWith+="Sensor_	void remove5leepFile○ €
void runfinimation(fiNIM_INDEX i	3 StatusBars_Ranked;		rue);		break;	and_OLED_disabled";	
ndex3 C	StatusBars_Ranked SBR;	if (Charging_State == true) (}else €	anim.setfinimation(112, 6, 400);	3	break;	if C LittleF5.exists C"
Index = index;		Icon_RegisterC5BR.Chargin	Icon_RegisterC5BR.CMDCP, f		3	default:	3
finimControllerO;		g, true);	alse);	for Cu8 i = 0; i < 2; ++i) anim.run		decodedWith += "NULL";	
3	void Icon_RegisterCunsigned o) else €)	finimationCanim.loading_X16_60FX;	if (allowReset == true) (break;	
3 anim;	har name; bool mode) {	Icon_RegisterC5BR.Chargin	3		oled.OLED_Display_OffO;	3	void resumeFromDeepSleepO {
	if Cmode == false && 5BR.Regis	g, false);		oled.OLED_DrawBMPC112, 6, 16			LittleF5.beginO;
	ter_State[name] == true) {)	public:	,16,Loading_X16_60F[60]);	digitalWriteCR5T,L0W2;		String SleepFile = "";
void ShouFireWarningO (SBR.Register_State[name] =		void beginO {)	String GPIO_State = "RST=" +	
oled.OLED_DrauBMPC0, 0, 32, 64,	false;)	String(digitalRead(RST)) + "\nTX	
FireWarning_32x64[0]);		if (WIFI_State == true) ()	D="+ StringCdigitalReadCTXD>> +	if C LittleF5.exists C"

	nloadMode = C5ysModefindStatus[if CCMD != ""O C	allowResponse = true;	CMDCP_State = false;	String clientLogingIP = serve
SleepFile = FFileS.readFileC"	11.toIntO != 0);			PassWord_Temp1=CMD		allowResponse = true;	r.clientO.remoteIPO.toStringO;
N ₁ N	if C5ysModeAndStatus[0] =	for Cuint8 i = 0; i < 10; ++i) {	File PrintBoxFile = LittleF5.op	I .	CMDCP_State = false;	return false;	
	= "freezeMode") freezeMode = C	delayC1000);	en <mark>C"</mark>	CMD = "";)	
	SysModefindStatus[1].toIntO!=0	if CdigitalReadC5EN0UT) ==	for Cauto& i: oled.getPrintBox	break;	return false;		bool Locker5tate = false;
for Cauto& i : oled.strsplitCSl	. D;	HIGH <mark>)</mark> break;	O)€	3	>	void CMDCP_Response C String R	for Cauto&i: clientLogedIPD C
eepFile, "\n">> (if C5ysModefind5tatus[0]=)	PrintBoxFile.print(i+"\n");	delay(500);)	esponse) (
vector<5tring>6PI0_5tat	= "diskMode") diskMode = C5ysMod		>)		CMDCP_Online_Response = "";	if Ci == olientLogingIP) Lock
us=oled.strsplit(i, "=");	efindStatus[1].toIntO != 0);	oled:0LED_InitO;	PrintBoxFile.closeO;		} else {	if (Response!= "") {	er5tate = true;
		oled:OLED_ColorTurnCO);		if CPassWord_Temp1 == ""		CMDCP_Online_Response = R	3
	3	oled.OLED_DisplayTurn(0);	ESP.deepSleep(time_us);) continue;	PassWord = FFileS.readFile(esponse;	
if CGPIO_Status[0] == "Dec	FFileS.removeFileC"","		3		"" ₁ "	oled.print(Response);	
oder_C") digitalWrite(Decoder_C,		timeRef.getNetWorkTimeO;) SysSleep;	CMDCP_ResponseC"Re-		Serial.println(Response);	if CLookerState == false && CC
GPIO_Status[1].toIntO);		oled.OLED_ClearO;		enter password:");	for Cunsigned char j = 0; j <)	MD == "CMD" CMD == "emd" CMD =
if CGPIO_Status[0] == "Dec	diskMode = false;	Desktop.Main_DesktopO;	class CMDControlPanel €	server.send(200, "text	3;++,j) {)	= "login">>> {
oder_B") digitalWrite(Decoder_B,)		private:		CMDCP_ResponseC"Enter		CMDCP_State = true;
GPIO_Status[1].toIntO);		timeRef.beginO;	String CMD = "";		password:");		
if CGPIO_Status[0] == "Dec		Desktop.beginO;	String PassWord = "";	for Cunsigned char i=0;i<	server.send(200, "text	void saveCmdHistoryC5tring CM	LockerState = PassLockerC
oder_fi") digitalWrite(Decoder_fi,	void Sys_freezeModeCbool Ena)	bool LockerState = false;	60; ++i⊃ €		D, String clientIP) (D)
GPIO_Status[1].toIntO);	ble = true) {)	String CMDCP_Online_Response			LittleF5.beginO;	
3	if (Enable == true) {		= "";	server.handleClientO;	for Cunsigned char i = 0; i <		
FFileS.removeFileC"", "	freezeMode = true;		vector<5tring>clientLogedIP;		60; ++i) (File cmdHistory = LittleF5.ope	if CLockerState == true) (
3						nC"	
	oled.OLED_Display_Off();	void Sys_diskModeCuint64_t tim		if CCMD != "") {	server.handleClientO;	cmdHistory.printColientIP+"-	if ColientLogedIP.emptyC)
		e_us=0){		PassWord_Temp2 = CMD		" + timeRef.timeReadCfalse) + "-	== true) {
if C LittleF5.exists C"			bool PassLocker O (1		" + CMD + "\n");	Developer_Mode = true;
	digitalWrite CDecoder_C , HIG	CMDCP_State = false;	allowResponse = false;	CMD = "";	if CCMD != ""⊃ €	omdHistory.closeO;	
SleepFile = FFileS.readFileC"	HD;	Developer_Mode = false;	CMD = "";	break;	PassWord_Temp1 = 5tr)	oled.setTextBoxC0, 0, 12
<i>n</i> ₁ <i>n</i>	digitalWrite CDecoder_B, HIG		String PassWord_Temp1 = "",)	ing(sha1(CMD));		8, 640;
	HD;	diskMode = true;	PassWord_Temp2 = "";	delay C500) ;	CMD = "";	public:	>
	digitalWrite CDecoder_fi, LOW	LittleF5.beginO;	LittleF5.beginO;	3	break;	bool allow = false;	
for Cauto& i : oled.strsplitC5l	i Di						clientLogedIP.push_backC
eepFile, "\n")) {)		cuentLogedIr.pusn_backC
) delay(500);	void begin O €	clientLogingIP);
vector<5tring> SysModefi	WiFi.setSleepMode (WIFI_MOD	File GPIO_StatusFile = LittleFS	if C LittleF5.exists C"	if CPassWord_Temp1 == Pa	delay(500);	void beginO { oled.setTextBox(0, 0, 128, 48);	
		File GPIO_StatusFile = LittleFS .openC"	if <mark>(</mark> LittleF5,exists ("	if (PassWord_Temp1 == Pa ssWord_Temp2 && PassWord_Tem) delay(500);)	_	
vector<5tring>5ysModefi			if (LittleF5.exists(" for (unsigned char j = 0; j <	ssWord_Temp2 && PassWord_Tem	delay(500);	_	
vector<5tring>5ysModefi	EM_SLEEP) ;	.openC" GPIO_StatusFile.printCGPIO_R		ssWord_Temp2 && PassWord_Tem	<pre>delay(500); } if (PassWord == PassWord</pre>	oled.setTextBox(0, 0, 128, 48);	olientLogingIP);
vector<5tring>5ysModefi	EM_SLEEP);) else if (Enable == false) (.openC" GPIO_StatusFile.printCGPIO_R	for Cunsigned char j = 0; j <	ssWord_Temp2 && PassWord_Tem) if (PassWord == PassWord	oled.setTextBox(0, 0, 128, 48);	olientLogingIP);
vector<5tring>5ysModefi	EM_SLEEP); > else if (Enable == false) { WiFi.setSleepMode(WIFI_NON) E_SLEEP);	.open(" GPI0_StatusFile.print(GPI0_R ead(O); GPI0_StatusFile.close();	for Cunsigned char j = 0; j < 3; ++j) {	ssWord_Temp2&&PassWord_Tem p1!= "") {	if (PassWord == PassWord _Temp1) (oled.setTextBox(0, 0, 128, 48);	<pre>clientLogingIP); LittleF5.beginO; File cmdLoggedInfo = Littl</pre>
vector<5tring>5ysModefl nd5tatus = oled.strsplit(i, "=");	EM_SLEEP); > else if (Enable == false) { WiFi.setSleepMode(WIFI_NON) E_SLEEP);	.open(" GPI0_StatusFile.print(GPI0_R ead(O); GPI0_StatusFile.close();	for Cunsigned char j = 0; j < 3; ++j) { CMDCP_ResponseC"5et pa	ssWord_Temp2 && PassWord_Tem p1 != "") { File dataFile = LittleF5.op	<pre>if CPassWord == PassWord _Temp1) { CMDCP_ResponseC"Pass</pre>	oled.setTextBox(0, 0, 128, 48);	<pre>clientLogingIP); LittleF5.beginO; File cmdLoggedInfo = Littl</pre>
<pre>vector<5tring> SysModefl ndStatus = oled.strsplit(i, "="); if CSysModefindStatus[0] =</pre>	EM_SLEEP); > else if (Enable == false) { WiFi.setSleepMode(WIFI_NON E_SLEEP);	.open(" GPI0_StatusFile.print(GPI0_R ead(O); GPI0_StatusFile.close();	for Cunsigned char j = 0; j < 3; ++ j) C CMDCP_ResponseC"5et pa ssword:");	ssWord_Temp2 && PassWord_Tem p1!= "") { File dataFile = LittleF5.op enC"	<pre>if CPassWord == PassWord _Temp1) { CMDCP_ResponseC"Pass</pre>	oled.setTextBoxC0, 0, 128, 483; > String CMDControlPanelOnlinePortalCString CMDCP_Online_Mess	<pre>clientLogingIP); LittleF5.beginO; File cmdLoggedInfo = Littl eF5.openC"</pre>
<pre>vector<5tring> SysModefl ndStatus = oled.strsplit(i, "="); if (SysModefindStatus[0] = "Developer_Mode") Developer</pre>	EM_SLEEP); > else if (Enable == false) { WiFi.setSleepMode(WIFI_NON E_SLEEP);	.open(" GPI0_StatusFile.print(GPI0_R ead(O); GPI0_StatusFile.close();	for Cunsigned char j = 0; j < 3; ++ j) C CMDCP_ResponseC"5et pa ssword:");	ssWord_Temp2 && PassWord_Tem p1 != "") { File dataFile = LittleF5.op enC" dataFile.printC5tringCsh	<pre>if CPassWord == PassWord _Temp1) (</pre>	oled.setTextBoxC0, 0, 128, 483; > String CMDControlPanelOnlinePortalCString CMDCP_Online_Mess	<pre>clientLogingIP); LittleF5.beginO; File cmdLoggedInfo = Littl eF5.open("</pre>
<pre>vector<string> SysModefi ndStatus = oled.strsplit(i, "="); if CSysModefindStatus[0] = "Developer_Mode"> Developer _Mode = CSysModefindStatus[1].t</string></pre>	EM_SLEEP); > else if (Enable == false) { WiFi.setSleepMode(WIFI_NON E_SLEEP); freezeMode = false;	.openC" GPIO_StatusFile.printCGPIO_R eadO); GPIO_StatusFile.close(); File SysModeRndStatusFile = L	for Cunsigned char j = 0; j < 3; ++ j) C CMDCP_ResponseC"5et pa ssword:");	ssklord_Temp2 && Passklord_Tem p1!= "") { File dataFile = LittleF5.op enC" dataFile.printC5tringCsh a1CPassklord_Temp1)); dataFile.oloseC);	<pre>if (PassWord == PassWord _Temp1) (</pre>	oled.setTextBoxC0, 0, 128, 483; > String CMDControlPanelOnlinePortalCString CMDCP_Online_Mess	<pre>clientLogingIP); LittleF5.beginO; File cmdLoggedInfo = Littl eF5.openC"</pre>
<pre>vector<5tring> SysModefl ndStatus = oled.strsplit(i, "="); if CSysModefindStatus[0] = "Developer_Mode"> Developer _Mode = CSysModefindStatus[1].t oInt() != 0);</pre>	EM_SLEEP); > else if (Enable == false) { WiFi.setSleepMode(WIFI_NON E_SLEEP); freezeMode = false; digitalWrite(Decoder_C, HIG	.openC" GPIO_StatusFile.printCGPIO_R eadO); GPIO_StatusFile.close(); File SysModeRndStatusFile = L	for Cunsigned char j = 0; j < 3; ++j) (CMDCP_ResponseC"5et pa ssword:"); server.sendC200, "text for Cunsigned char i = 0; i <	ssklord_Temp2 && Passklord_Tem p1!= "") { File dataFile = LittleF5.op enC" dataFile.printC5tringCsh a1CPassklord_Temp1)); dataFile.oloseC);	<pre>if (PassWord == PassWord _Temp1) (</pre>	oled.setTextBox(0, 0, 128, 48); } String CMDControlPanelOnlineP ortalCString CMDCP_Online_Mess age) {	<pre>clientLogingIP); LittleF5.beginO; File cmdLoggedInfo = Littl eF5.openC"</pre>
<pre>vector<string> SysModefi ndStatus = oled.strsplit(i, "="); if CSysModefindStatus[0] = "Developer_Mode") Developer _Mode = CSysModefindStatus[1].t oInt() != 0); if CSysModefindStatus[0] =</string></pre>	EM_SLEEP);) else if (Enable == false) (.openC" GPIO_StatusFile.printCGPIO_R eadCO; GPIO_StatusFile.closeC); File SysModefindStatusFile = L ittleF5.openC" SysModefindStatusFile.printC	for Cunsigned char j = 0; j < 3; ++j) (CMDCP_ResponseC"5et pa ssword:"); server.sendC200, "text for Cunsigned char i = 0; i <	ssklord_Temp2 && Passklord_Tem p1!= "") { File dataFile = LittleF5.op enC" dataFile.printC5tringCsh a1CPassklord_Temp1)); dataFile.oloseC);	<pre>if (PassWord == PassWord _Temp1) { CMDCP_Response("Pass ed"); server.send(200, "text allowResponse = true;</pre>	oled.setTextBox(0, 0, 128, 48); String CMDControlPanelOnlineP ortalCString CMDCP_Online_Mess age) { if CCMDCP_Online_Message ==	clientLogingIP); LittleF5.beginO; File cmdLoggedInfo = Littl eF5.openC" cmdLoggedInfo.printCclie ntLogingIP + "- " + timeRef.timeReadCfalse) + "- login\n");
<pre>vector<5tring> SysModefl ndStatus = oled.strsplit(i, "="); if CSysModefindStatus[0] = "Developer_Mode") Developer _Mode = CSysModefindStatus[1].t oInt() != 0); if CSysModefindStatus[0] = "allowResponse") allowRespon</pre>	EM_SLEEP);) else if (Enable == false) (WiFi.set5leepMode(WIFI_NON E_SLEEP); freezeMode = false; digitalWrite(Decoder_C, HIG H);	.openC" GPIO_StatusFile.printCGPIO_R eadCO; GPIO_StatusFile.closeC); File SysModefindStatusFile = L ittleF5.openC" SysModefindStatusFile.printC	for Cunsigned char j = 0; j < 3; ++j) (CMDCP_ResponseC"5et pa ssword:"); server.sendC200, "text for Cunsigned char i = 0; i <	ssklord_Temp2 && Passklord_Tem p1!= "") { File dataFile = LittleF5.op en(" dataFile.print(String(sh a1(Passklord_Temp1))); dataFile.close(); CMDCP_Response("floce	<pre>if (PassWord == PassWord _Temp1) { CMDCP_Response("Pass ed"); server.send(200, "text allowResponse = true;</pre>	oled.setTextBox(0, 0, 128, 48); String CMDControlPanelOnlineP ortalCString CMDCP_Online_Mess age) { if CCMDCP_Online_Message ==	clientLogingIP); LittleF5.beginO; File cmdLoggedInfo = Littl eF5.openC" cmdLoggedInfo.printCclie ntLogingIP + "- " + timeRef.timeReadCfalse) + "- login\n");
<pre>vector<string> SysModefi ndStatus = oled.strsplit(i, "="); if CSysModefindStatus[0] = "Developer_Mode"> Developer _Mode = CSysModefindStatus[1].t oInt() != 0); if CSysModefindStatus[0] = "allowResponse"> allowRespon se = CSysModefindStatus[1].toInt</string></pre>	EM_SLEEP);) else if (Enable == false) (WiFi.set5leepMode(WIFI_NON E_SLEEP); freezeMode = false; digitalWrite(Decoder_C, HIG H); digitalWrite(Decoder_B, HIG H);	.openC" GPIO_StatusFile.printCGPIO_R eadCO; GPIO_StatusFile.closeC); File SysModefindStatusFile = L ittleF5.openC" SysModefindStatusFile.printC getSysModefindStatusFile.closeC	for Cunsigned char j = 0; j < 3; ++j) { CMDCP_Response("5et pa ssword:"); server.send(200, "text for Cunsigned char i = 0; i < 60; ++i) {	ssklord_Temp2 && Passklord_Tem p1!= "") { File dataFile = LittleF5.op en(" dataFile.print(String(sh a1(Passklord_Temp1))); dataFile.close(); CMDCP_Response("floce	<pre>if (PassWord == PassWord _Temp1) (</pre>	oled.setTextBox(0, 0, 128, 48); String CMDControlPanelOnlineP ortalC5tring CMDCP_Online_Mess age) { if CCMDCP_Online_Message == "") return "";	clientLogingIP); LittleF5.beginO; File cmdLoggedInfo = Littl eF5.openC" cmdLoggedInfo.printColie ntLogingIP + "- " + timeRef.timeReadCfalse) + "- login\n"); cmdLoggedInfo.closeO; }
vector(String) SysModefindStatus = oled.strsplit(i, "="); if (SysModefindStatus[0] = = "Developer_Mode") Developer _Mode = (SysModefindStatus[1].t oInt()!= 0); if (SysModefindStatus[0] = = "allowfiesponse") allowfiespon se = (SysModefindStatus[1].toInt ()!= 0);	EM_SLEEP); Jelse if (Enable == false) { WiFi.setSleepMode(WIFI_NON) E_SLEEP); freezeMode = false; digitalWrite(Decoder_C, HIG) H); digitalWrite(Decoder_B, HIG) H); digitalWrite(Decoder_F, HIG)	.openC" GPIO_StatusFile.printCGPIO_R eadCO; GPIO_StatusFile.closeC); File SysModefindStatusFile = L ittleF5.openC" SysModefindStatusFile.printC getSysModefindStatusFile.closeC	for Cunsigned char j = 0; j < 3; ++j) { CMDCP_Response("5et pa ssword:"); server.send(200, "text for Cunsigned char i = 0; i < 60; ++i) {	ssWord_Temp2 && PassWord_Tem p1!= "") { File dataFile = LittleF5.op en(" dataFile.printC5tringCsh a1(PassWord_Temp1))); dataFile.close(); CMDCP_Response("floce pted");	<pre>if (PassWord == PassWord _Temp1) (</pre>	oled.setTextBox(0, 0, 128, 48); String CMDControlPanelOnlineP ortalC5tring CMDCP_Online_Mess age) { if CCMDCP_Online_Message == "") return "";	clientLogingIP); LittleF5.beginO; File cmdLoggedInfo = Littl eF5.openC" cmdLoggedInfo.printColie ntLogingIP + "- " + timeRef.timeReadCfalse) + "- login\n"); cmdLoggedInfo.oloseO; }

```
saveCmdHistoryCCMD, client
                                                                 if CCMD_Index[0] == "cat") {
                                                                                                 {删除一个文件或者目录
                                                                                                                                                                 digitalUriteCRST. LOUD:
                                                                                                                                                                                                   alent.LED B EnableCo.t
                                                                                                                                                                                                                              if CCMD_Index[0] == "alentdis"
                                                                                                                                if CCMD_Index[0] == "mv") {
                                                                   String File_Info = FFileS.rea (Remove)}
                                                                                                                                                                                                                          >€
LogingIP);
                                                                                                                                                                 CMDCP_Response("");
                                                                                                                                                                                           rue);
    commandIndexerO;
                                  vector<String> CMD_Index = o dFile(CMD_Index[1]);
                                                                                                 rm [fileName]: 删除工作目录下的
                                                                                                                                 if CCMD_Index[1] == "-r") {
                                                                                                                                                                                                                                alert.flLERT_DisableO;
                               led.strsplitCCMD. " "D:
                                                                   CMDCP_Response(File_Info 文件;
                                                                                                                                   FFile5.copyDirCCMD_Index
                                                                                                                                                                                                3 else if CCMD_Index[2] == "
                                                                                                                                                                                                                               CMDCP_Response("");
                                                                                                 rm -r [dirName]: 删除工作目录 [2], CMD_Index[3], true);
                                                                                                                                                                                           0" || CMD_Index[2] == "false" || CM
                                                                                              下的文件夹:
                                                                                                                                 3 else {
                                                                                                                                                               if (CMD_Index[0] == "pios") {       D_Index[2] == "disable") {
                                  if CCMD_Index[0] == "help") {
                                                                                                                                   FFileS.copyFileCCMD_Inde
                                                                                                                                                                 CMDCP_ResponseC5ys5leep.
                                                                                                                                                                                                  if CCMD_Index[1] == "r") {
   allow = false:
   return CMDCP_Online_Respon
                                    CMDCP_ResponseCCMDCP_HE
                                                                                                if CCMD_Index[0] == "rm") {
                                                                                                                             x[1], CMD_Index[2], true);
                                                                                                                                                            GPIO_ReadCO:
                                                                                                                                                                                                   alent.LED_R_Enable(0, f
                                                                                                                                                                                                                              ⟨浅休眠模式⟩freeze [enable]
                               LPD:
                                                                 if CCMD_Index[0] == "touch")
                                                                                                  if CCMD_Index[1] == "-r") {
                                                                                                                                                                                           alse):
                                                                                                                                                                                                                              [休眠模式-freeze]. 冻结 I
                                                                                                    FFile5.removeDirectorCCM
                                                                                                                                 CMDCP Response(""):
                                                                                                                                                                                                   allowDownloadMode = tru
                                                                                                                                                                                                                              freeze 1
                                                                   FFileS.createFileCCMD Inde D Index[2D:
                                                                                                                                                                                                                              freeze 0
                                                                                                                                                               if (CMD_Index[0] == "pss") {
 void CMDControlPanelSerialPor
                                                                                                                                                                                                  } else if CCMD_Index[1] ==
                                                              x[1]):
talO C
                                  if CCMD_Index[0] == "pud") {
                                                                   CMDCP_ResponseC"");
                                                                                                    FFileS.removeFileCCMD In
                                                                                                                                                                 CMDCP_ResponseC5ys5leep. "g") {
                                                                                                                                                                                                                              if CCMD_Index[0] == "freeze"
                                                                                              dex[1]):
                                                                                                                                (查找指定目录下的文件(包含子目 getSysModefindStatus());
   SerialReceivedO:
                                   CMDCP_ResponseCFFile5.get
                                                                                                                                                                                                   alent,LED_G_Enable(0, f ) {
                               WorkDirectory():
                                                                                                                             录的文
                                                                                                                                                                                           alse):
                                                                                                                                                                                                                                if CCMD_Index[1] == "1" || CM
                                                                                                  CMDCP_ResponseC"");
                                                                                                                             件>>find [dirPath][fileName]:在
                                                                                                                                                                                                    allowDownloadMode = tru D_Index[1] == "true" || CMD_Index
                                                                                                                             dirPath 目录下按文件名查找文件;
                                                                                                                                                                                                                          [1] == "enable") {
   if CLockerState == false && Se
                                                                 if CCMD_IndexE01 == "mkdir") {
                                                                                                                                                                                           e:
rial.availableO == false && CCMD
                                                                   FFile5.makeDirectorCCMD_In
                                                                                                                                [fileName] = x,x; 查找所有文件;
                                                                                                                                                               《点壳板载的
                                                                                                                                                                                                  } else if CCMD_Index[1] ==
                                                                                                                                                                                                                                 SysSleep.Sys_freezeMod
== "CMD" || CMD == "omd" || CMD == "
                                  if CCMD_Index[0] == "ls") {
                                                              dex[1]);
                                                                                                                                "b">€
                                                                                                                                                                                                                           eCtrue);
                                                                   CMDCP_Response("");
                                                                                                 《复制一个文件或目录
                                                                                                                             名为 txt 的文件:
                                                                                                                                                                                                   alent.LED_B_Enable(0, f
                                                                                                                                                                                                                               } else if CCMD_Index[1] == "
login">> €
                                   String listDirectory = FFileS.
                                                                                                                                                               Ledic 1
    LockerState = PassLockerC listDirectoryContentsO:
                                                                                                                                [fileName] = a.txt: 查找 a.txt 文
                                                                                                                                                                                                                           0" || CMD_Index[1] == "false" || CM
                                                                                              (Copu file))cp [-
                                                                                                                                                                                           alse):
                                                                                                                                                               led g 1
0:
                                    CMDCP_ResponseClistDirect
                                                                                              options][sourcePath][targetPat 件;
                                                                                                                                                               led h 1
                                                                                                                                                                                                                           D_Index[1] == "disable") {
                               ory);
                                                                                             h3;
                                                                                                                                                               ledr0
                                                                                                                                                                                                                                 SysSleep.Sys_freezeMod
                                                                 echo [string]: 内容打印到控制
                                                                                                ср [源文件路径] [目标文件路
                                                                                                                                if CCMD_Index[0] == "find") {
                                                                                                                                                                                                CMDCP_ResponseC"");
                                                                                                                                                                                                                           eCfalse):
                                                                                                                                                               led g 0
    if (LockerState == true) {
                                                              台
                                                                                              径]:复制一个文件到另一个文件;
                                                                                                                                                               led b 0
      Developer_Mode = true;
                                                                  echo [string] > [fileName]: 将
                                                                                                op -r [源目录路径] [目标目录路
                                                                                                                                  if CCMD_Index[1].charfitCCM
                                                                                                                                                                                                                                CMDCP_Response(""):
                                                              内容直接覆盖到工作目录的文件中:
                                                                                              径1: 复制一个目录到另一个目录;
                                                                                                                                                               note: 点壳红灯和绿灯会触发下载
                                  《切换当前工作目录
                                                                                                                             D_Index[1].length() = 1) != "
      oled.setTextBox(0, 0, 128. (Change directory))cd [dirName]
                                                                  echo[string]>>[fileName]:
                                                                                                                                                            模式讲而导致复位。因此我们要先禁用
                                                                                                                                                                                               《打开報鸣器》buzz [state]
640:
                                  [cd ~][cd
                                                              将内容追加到工作目录的文件中:
                                                                                                if CCMD_Index[0] == "op") {
                                                                                                                                  String foundFile = FFileS.fin
                                                                                                                                                                                               state=1
                                  [cd-]:返回上一个打开的目录;
                                                                                                                                                                                                                              《深度睡眠模式》disk [time_us]
                                                                                                  if CCMD_Index[1] == "-r") { dFiles(CMD_Index[1], CMD_Index[
                                                                                                                                                                                               state = 0
                                                                 if CCMD_Index[0] == "echo") {
                                                                                                                                                                                                                              [深度休眠模式-disk] 运行状态
                                                                                                    FFileS.copuDirCCMD_Index 210:
                                                                                                                                                               if CCMD_Index[0] == "led") {
                                                                   if CCMD_Index[2] == ">"> C
                                                                                             [2], CMD_Index[3]D;
                                                                                                                                                                 if CCMD_Index[2] == "1" || CM
                                                                                                                                                                                               if CCMD_Index[0] == "cd") {
                                                                                                                                  CMDCP_ResponseCfoundFile
   if (LockerState == true) comm
                                   if CCMD_Index[1] == "~") {
                                                                    FFileS.fileCoverCCMD_Inde
                                                                                                  3 else (
                                                                                                                             Э;
                                                                                                                                                            D_Index[2] == "true" || CMD_Index
                                                                                                                                                                                                if CCMD_Index[1] == "1" || CM 框信息)数据存到 Flash(醒来时恢复
                                     FFile5.changeDirectoryC" x[1], CMD_Index[3]);
                                                                                                    FFile5.copyFileCCMD_Inde
                                                                                                                                                            [2] == "enable") {
                                                                                                                                                                                           D_Index[1] == "true" || CMD_Index 状态), 然后 ESP12F 进入深度睡眠;
andIndexerO:
   allow = false:
                                   3 else if CCMD_Index[1] == "
                                                                     CMDCP_Response(""):
                                                                                              x[1].CMD_Index[2]):
                                                                                                                                                                   if CCMD_Index[1] == "r") { [1] == "enable") {
                                                                                                                                                                                                                              time_us(微秒) = 0: 无眼期进入深
                                                                   } else if CCMD_Index[2] == ">
                                                                                                                                                                    allouDounloadMode = fal
                                                                                                                                                                                                  alert.BUZZER_Enable(0, tr 度睡眠, 只有手动按 RST 复位才能恢
                                     FFile5.backDirectory(); >") {
                                                                                                  CMDCP_Response("");
                                                                                                                                if (CMD_Index[0] == "osinfo") se;
                                                                                                                                                                                                                           复
                                                                                                                                                                                           HeD:
 void SerialReceivedO (
                                   3 else €
                                                                    FFileS.filefippendCCMD_Ind
                                                                                                                             .
                                                                                                                                                                    alent.LED_R_EnableCO.t
                                                                                                                                                                                                3 else if CCMD_Index[1] == "
                                                              ex[1], CMD_Index[3]);
                                                                                                                                  CMDCP_ResponseCG5G3_Os_ rue);
                                                                                                                                                                                           0" || CMD_Index[1] == "false" || CM
                                                                                                                                                                                                                              if CCMD_Index[0] == "disk") {
                                                                     CMDCP_Response("");
                                     if CCMD_Index[1].charfitCC
                                                                                                                             Info
                                                                                                                                                                   } else if CCMD_Index[1] == D_Index[1] == "disable") {
                                                                                                                                                                                                                               if CCMD_Index[1].toIntO != 0
   while (Serial available (C) CMD MD Index[1].length (C = 1)!=
                                                                   3 else {
                                                                                                 《文件或目录改名或将文件或目录
                                                                                                                                                            "a"> €
                                                                                                                                                                                                  alert,BUZZER_Enable(0, fa ) SysSleep,Sys_diskMode(CMD_In
                                                                     CMDCP_Response(CMD_Ind 移入其它位置(Move))mv[-
                                                                                                                                  oled.OLED_DrauBMPC0, 0, 12
                                                                                                                                                                                                                           dex[1].toIntOD:
+= static_cast<char>C5erial.rea
                                     FFile5.changeDirectoryCC
                                                                                                                                                                    allowDownloadMode = fal lse);
                                                              ex[1D;
dOD:
                               MD_Index[1]D
                                                                                              options][sourcePath][targetPat 8, 48, GasSensorGen305_Info);
                                                                                                                                                                                                                               CMDCP_Response("");
                                                                                                                                                                    alent,LED_G_EnableCO, t
                                                                                                                                                                                                CMDCP_ResponseC"");
                                    CMDCP_Response("");
                                                                                                mv [源文件路径] [目标文件路
                                                                                                                                                           rue
 void commandIndexer () {
                                                                                              径]: 移动一个文件到另一个文件:
                                                                                                                                                                  } else if CCMD_Index[1] ==
   oled.print("> " + CMD):
                                                                                                mv-r [源目录路径] [目标目录路
                                                                                                                                if (CMD_Index[0] == "reboot") "b") {
                                                                                                                                                                                                                              《显示历史执行过的命
   Serial.printlnC"> " + CMD):
                                                                                              径]: 終功一个目录到另一个目录:
                                                                                                                                                                                                                           今}history [-options]
```

history:显示历史执行过的命令;	date:显示系统时间;	if CCMD_Index[0] == "wifi") {	if CCMD_Index[2] == "othe	3	if (WiFi.status() == WL_CON	oled.OLED_DisplayTurn(0);	alert.LED_R_EnableC100 × c
history—s:(history—sleep)	date -n : 同步网络时间;	FFile5.fileCoverCCMD_Index	r") {	3 CMDCP;	NECTED) €		osC0.1 × WarningCycle) + 2000;
显示深度睡眠前执行过的命令;	date -s [time5tr]: 根据字符串设	[1]+"<55ID	String clientLogoutIP = s		Serial.printC"IP fiddress	oled.OLED_DrawBMPC0, 0, 128, 6	
history -c:(history -clear)	置Cset)系统时	CMDCP_Response("");	erver.clientO.remoteIPO.toStrin	olass WebServer €	;"D;	4, RMSHE_IMGD;	ShowFireWarningO;
清空所有的命令历史记录 ;	词, time5tr = 20230203121601 (Ye	3	g <mark>O</mark> ;	public:	Serial.print (WiFi.localIP (
ж	ar Month Day Hour Minute Second		vector<5tring> allClientI	void beginServerO (D);	WebServer.WiFi_ConnectO;	
if CCMD_Index[0] == "history");		P = clientLogedIP;	server.beginO;	Serial.println C":" + Strin		
>€	×	if CCMD_Index[0] == "power of			g(ServerPort));	http.setTimeoutCTimeOut);	for Cunsigned char i = 0; i < 3
if CCMD_Index[1] == "-s") {	if CCMD_Index[0] == "date") {	f") {	for Cauto&i: allClientIP)			http.beginColient,GetSysTimeUrl	0; ++i) C
CMDCP_ResponseCFFile5.r	if CCMD_Index[1] == "-n") {	SysSleep.Sys_diskMode(0);	if (i != clientLogoutIP)	server.on("	WIFI_State = true;	D)	alert.LED_R_Enable(1);
eadFile C"" , "	timeRef.getNetWorkTime();	CMDCP_Response("");	clientLogout(i);	server.on("	break;		alert.LED_G_EnableC1);
<pre>} else if CCMD_Index[1] == "</pre>	CMDCP_Response("");))else (timeRef.getNetWorkTimeO;	alert.LED_B_Enable(1);
-c") {	} else if CCMD_Index[1] == "		} else if CCMD_Index[2] ==	String CMDCP_Online_Messa		oled.OLED_ClearO;	3
FFile5.removeFile("", "	-s") {		"all") {	ge = server.arg("message");	if CtimeRef.timeRead() ==	Desktop.Main_DesktopO;	
CMDCP_Response("");	timeRef.sysTime.set5ystem	《登出和锁定 CMDCP > logout [-	vector<5tring> allClientI		"00:00")		alert.BUZZER_EnableC400 ×
}else {	TimeCCMD_Index[2]);	options] [clientIP];	P = clientLogedIP;	String CMDCP_Send_Messag	anim.runfinimationCanim.		cosC0.1 × WarningCycle) + 500);
CMDCP_Response(FFile5.r	CMDCP_Response("");	logout:自己登出,不会影响其他	for Cauto& i : allClientIP)	e = CMDCP.CMDControlPanelOnline	loadingBar_60x8_30F);	WIFI_Test.attachC300, [ICvoid)	++WarningCycle;
eadFile C"" , "		经验	clientLogout(i);	Portal(CMDCP_Online_Message);	else	-> void €	3
)	} else {	logout -k [clientIP]: 将指定 IP) else (anim.runfinimationCanim.		
3	CMDCP_Response(timeRef.		clientLogoutCCMD_Index	if (allowResponse == true)	loading_X16_60F);	if (digitalRead(SENOUT) == HIG	alert.flashWritefilertLogC"E"
	timeRead(false));	logout -k other: <u> </u>	[2D;	server.sendC200, "text)	H && WiFi.status () != WL_CONNECTE	+ timeRef.timeReadCfalseD);
	3	己外的其他終端)	33);)	D) WIFI_State = false;	alert.flLERT_DisableO;
if (CMD_Index[0] == "uho") {	>	logout -k all : 登出所有終端:	}else {)	Felse (30;	
String who = "";		×	String clientLogoutIP = se		WIFI_State = true;		oled.OLED_Clear();
for Cauto& i : clientLogedIP3		auto clientLogout = [this]C5tr	i rver.clientO.remoteIPO.toString)	timeRef.beginO;	
who += G + "\n");	if (CMD_Index[0] == "clear") {	ng clientIP) -> void {	O;	void WiFi_ConnectO ()	Desktop.beginO;	Desktop.Main_DesktopO;
CMDCP_Response(who);	oled.olearTextBoxO;		clientLogoutCclientLogout) WebServer;	CMDCP.beginO;	
3	CMDCP_Response("");	clientLogedIP.eraseCremov		if CtimeRef.timeReadO == "00:0		WebServer.beginServerO;	>
)	eColientLogedIP.beginO, clientLo		0")	void setup(void) {		
		gedIP.endO, clientIP), clientLoge		anim.setfinimation(67, 6);	Serial,begin (115200) ;	SysSleep.resumeFromDeepSlee	Show_Charging_info();
(查看所有系统登录记录)last [-		dIP.endO);		else	LittleF5.beginO;	pO;	ProgramDownloadModeO;
options];	if (CMD_Index[0] == "df") {		if ColientLogedIP.emptyO ==	anim.setfinimationC112, 62;)	
last: 查看所有系统登录记录;	String Flash_Info = FFile5.g		true) (
last −c : 渚空登录记录;	etFlash_infoO;		CMDCP_State = false;	if (WiFi.status() != WL_CONNEC	alert.filertInitO;	void loop(void) (if (timeRef.allow == true) {
ж	CMDCP_Response(Flash_Inf		-	TED) (if CdigitalReadC5ENOUT) == LOW	timeRef.getNetWorkTime();
if (CMD_Index[0] == "last") {	-	5.openC"	Developer_Mode = false;	WIFI_5tate = false;	pinModeCR5T, OUTPUT);	&& freezeMode == false) {	timeRef.allow = false;
if CCMD_Index[1] == "-o") {	}	omdLoggedInfo.printColient			digitalWrite (RST, HIGH) ;	alert.flashkriteflertLog("5"	•
FFileS.removeFileC"","		P+"-	oled.setTextBox(0, 0, 128,			+ timeRef.timeReadCfalse));	
CMDCP_Response("");	14 COMP. To 14. FOT 84 82. C	" + timeRef.timeRead(false) + "-		vector<5tring>55ID_PR55W			if (WIFI_State == false) WebSer
}else {	if (CMD_Index[0] == "free") {		oled.OLED_Clear();	D = oled.strsplitCFFile5.readFileC		unsigned int WarningCycle = 0;	Ver.WIFI_ConnectO;
CMDCP_ResponseCFFile5.r			Desktop.Main_DesktopO;	, n	pinModeC5ENOUT, INPUT_PULLUP	while CdigitalReadC5ENOUT) ==	
eadFileC"", "	: " + String(ESP.getFreeHeap()) +			USE: La Lindestin Descriptor	Ji	LOW) (server.handleClientO;
	"Byte";);	*	WiFi.beginCSSID_PRSSWD[0],	pinMode (CHRG, INPUT_PULLUP) ;	alert.LED_B_EnableC100 × c	
*	CMDCP_Response(FreeHeap	if (CMD_Index[0] == "logout")		SSID_PASSWD[1]);		osC0.1 × WarningCycle + 3.14) + 10	#Include "ULCUIN"
	N .	I HHAFE basis	CMDCP_ResponseC"");	Says Commission and advances in Co. L. C.		0);	
(显示或设置系统时间)date [-		LittleF5.beginO;	>	for Cunsigned char i = 0; i < 1		oled.OLED_DrawBMPC0, 0, 12	weld of Editor Telico C
randu sayar eta							
options][time5tr];		if CCMD_Index[1] == "-k") {	CMD = "";	00;++;00	oled.OLED_Init(); oled.OLED_ColorTurn(0);	8, 64, Fire_Warning);	void OLED::I2C_InitO (SDA_OUT;

SCL_OUT;	void OLED::OLED_WR_ByteCu8 dat,	OLED_WR_ByteC0xC8, OLED_CM	for (u8 i = 0; i < 8; ++i) (OLED_WR_ByteCtemp, OLED_D	if Ctemp == 0) {		OLED_WR_Byte COxD3 , OLED_CMD
I2C_SDA_H;	u8 mode) {	DD;	OLED_WR_Byte(0xb0 + i, OLED_	ATA);	OLED_ShowChar(x + (size		Di .
I2C_SCL_H;		OLED_WR_ByteC0xA1,OLED_CM	CMD);) else if (sizey == 36) {	g		OLED_WR_ByteC0x00, OLED_CMD
3	if CPreRendered == true && mod	DD;	OLED_WR_ByteC0x00,OLED_CM	temp=pgm_read_byteC&asc	continue;		D)
	e == OLED_DATAD (Felse (DD;	2_3618[c][i]);	Felse	void OLED::OLED_DrawBMPCu8 x; u	OLED_WR_Byte C0 xd5,OLED_CMD
	SET_OLED_GDDRAM_CLONECda	OLED_WR_ByteC0xC0, OLED_CM	OLED_WR_Byte(0x10,OLED_CM	OLED_WR_ByteCtemp, OLED_D	enshow=1;	8 y, u8 sizex, u8 sizey, const u8 B	D)
void OLED::I2C_StantO (θį	DO;	DD;	ATAD;)	MPED C	OLED_WR_ByteC0x80,OLED_CMD
I2C_5CL_H;	} else if (PreRendered == false	OLED_WR_ByteC0xA0, OLED_CM	for Cu8 n = 0; n < 128; ++n) OLE	} else if (sizey == 48) {	OLED_ShowChar(x + Csizey	u16 j = 0 ;	D;
I2C_SDA_H;	DC .	DD;	D_WR_Byte <mark>CO,</mark> OLED_DATA) ;	temp=pgm_read_byteC&asc)	u8 i, m, temp;	OLED_WR_ByteC0xD9,OLED_CMD
I2C_SDA_L;	I2C_StantO;))	2_4824[c][i]);)	sizey = sizey	D;
I2C_SCL_L;	Write_I2C_Byte(0x78);	>	>	OLED_WR_ByteCtemp, OLED_D		for (i = 0; i < sizey; i++) {	OLED_WR_ByteC0xF1,OLED_CMD
3	I2C_Wait_flokO;			ATA);		OLED_Set_Pos(x, i + y);) ;
	if Cmode == OLED_DATA) (} else if (sizey == 49) {	void OLED::OLED_ShowStringCu8 x,	for (m = 0; m < sizex; m++) {	OLED_WR_ByteC0xDA, OLED_CMD
	SET_OLED_GDDRAM_CLONECd	void OLED::OLED_Set_PosCu8 x, u8		temp=pgm_read_byteC&asc	u8 y, const char *chr, u8 sizey) (temp=pgm_read_byteC&BMP	D)
void 0LED::I2C_5topO €	at);	y) (2_Digital_2448[c][i]);	u8 j = 0;	[.j++1);	OLED_WR_ByteC0x12,OLED_CMD
I2C_SCL_H;	Write_I2C_Byte(0x40);	OLED_Pos = (x, y);		OLED_WR_ByteCtemp, OLED_D	while Cohr[j] != '\0') {	OLED_WR_Byte(temp, OLED_D	D)
I2C_SDA_L;	Felse (OLED_WR_ByteC0xb0 + y, OLED_	void OLED::OLED_ShowCharCu8 x _i	ATA);	OLED_ShowChar(x, y, chr[j++	ATA);	OLED_WR_Byte <mark>(0×DB</mark> , OLED_CMD
I2C_SDA_H;	Write_I2C_Byte(0x00);	CMD) ;	u8 y, const u8 chr, u8 sizey) () else	l, sizey);)	D)
))	OLED_WR_ByteCCCx & 0xf02>>> 4>	u8 c = 0, sizex = sizey	return;	if (sizey == 8))	OLED_WR_Byte C 0×40, OLED_CMD
	I2C_Wait_flokO;	(0x10, OLED_CMD);	u16 i = 0, size1;		x += 6;)	D)
	Write_I2C_Byte(dat);	OLED_WR_ByteCCx & 0x0f), OLED	if (sizey == 8)		else		OLED_WR_Byte (0 x20,OLED_CMD
void OLED::I2C_Wait_flokO (I2C_Wait_flokO;	_CMD);	size1 = 5;	OLED_Pos = {static_castKunsi	x += sizey		D)
I2C_5DA_H;	I2C_StopO;)	else	gned char>Cstatic_castCunsigne)	void OLED::OLED_Init(void) {	OLED_WR_Byte(0x02,OLED_CMD
I2C_5CL_H;	>		size1 = Csizey	d short>(x) + i), y);)	I2C_InitO;	D)
I2C_SCL_L;)		c=chr='';)			OLED_WR_Byte C0 x8D, OLED_CMD
3		void OLED::OLED_Display_OnCvoid	OLED_Set_Pos(x, y);)		OLED_WR_Byte (0xAE, OLED_CMD	D)
) (for (i = 0; i < size1; i++) {		void OLED::OLED_ShowChineseCu8		OLED_WR_Byte (0x14,OLED_CMD
	void OLED::SET_OLED_GDDRAM_CL	OLED_WR_Byte C0X8D , OLED_CMD	if (i % sizex == 0 && sizey != 8)		x, u8 y, const u8 no, u8 sizey) (OLED_WR_Byte(0x00, OLED_CMD	D)
void OLED::Write_I2C_ByteCunsign	ONE (unsigned char BytesData) ();	OLED_Set_Pos(x, y++);	u32 OLED#oled_powCu8 m, u8 n) {	u16 i, size1 = Csizey) ;	OLED_WR_Byte C 0x84,OLED_CMD
ed char dat) (OLED_GDDRAM_CLONECOLED_Pos	OLED_WR_ByteCOX14, OLED_CMD	if (sizey == 8) {	u32 result = 1;	u8 temp;	OLED_WR_Byte(0x10, OLED_CMD	D)
unsigned char i;	.yJEOLED_Pos.xJ = BytesData;	D)	temp=pgm_read_byteC&G50	while (n) result == m;	for (i = 0; i < size1; i++) {) (OLED_WR_ByteC0xA6,OLED_CMD
)	OLED_WR_ByteCOXAF, OLED_CMD	5_ASCII_0805[c][i]);	return result;	if (i % sizey == 0) OLED_Set_Po	OLED_WR_ByteC0x40, OLED_CMD) ;
for (i = 0; i < 8; i++> €		D)	OLED_WR_ByteCtemp, OLED_D)	s(x,y++);) ;	OLED_ClearO;
I2C_5CL_L;)	ATA);		if (sizey == 32) {		OLED_WR_Byte COxAF , OLED_CMD
if (dat & 0x80) (void OLED::OLED_ColorTurnCu8 D		} else if (sizey == 16) {		temp=pgm_read_byteC&Fir) ;
I2C_SDA_H;	€		temp=pgm_read_byte(&asc		eWarning_32x32[no][i]);	OLED_WR_ByteC0xCF, OLED_CMD	•
) else (if CiD	void OLED::OLED_Display_OffCvoid			OLED_WR_ByteCtemp, OLED_D		
I2C_5DA_L;	OLED_WR_ByteC0xA6, OLED_CM		OLED_WR_ByteCtemp, OLED_D		ATA);	OLED_WR_ByteC0xA1, OLED_CMD	
)	D);	OLED_WR_ByteC0X8D, OLED_CMD	-);	
dat <<= 1;	else);		void OLED::OLED_ShowNumCu8 x, u	temp=pgm_read_byteC&Fir	OLED_WR_ByteC0xC8, OLED_CMD	
I2C_SCL_H;		OLED_WR_ByteCOX10, OLED_CMD		8 y, u32 num, u8 len, u8 sizey) ();	void OLED::OLED_GDDRAM_Refresh
7	D););	2_3216[c][i]);	u8 t, temp, m = 0;			Cu8 leftPixel, u8 topPixel, u8 right
I2C_5CL_L;	3	OLED_WR_ByteCOXAE, OLED_CMD	OLED_WR_ByteCtemp,OLED_D		ATA););	Pixel, u8 bottomPixel) {
•);	ATA);	if (sizey == 8) m = 2;) else	OLED_WR_ByteC0xf18, OLED_CMD	
)	} else if (sizey == 64) {	for (t = 0; t < len; t++) (return;	Ji	unsigned char topPage = static
	void OLED::OLED_DisplayTurnCu8i		temp = pgm_read_byteC&asc		· ·		_castKunsigned char>CtopPixel>
)(and of some solution of the s	2_6432[c][i]);	if Censhow == 0 && t < Clen - 1)	2);	> 3);
	if (i == 0) {	void OLED::OLED_Clear(void) {) (

Ministry	unsigned char bottomPage = sta	Byte_data != OLED_GDDRAM_C	if (e2>-dx) {	void OLED::clearrectangle C u8 lef	符串,以便在下一次循环中继续查	CPrintBox.sizeO, Hight_MaxN	Newline_Pos = text.index0f0	这段代码主要的作用是将文本字符串
	tic_cast <unsigned char="">Cbottom</unsigned>	LONE[Page_Pos][xPixel];	err == dy;	tPixel, u8 topPixel, u8 rightPixel, u	找 "separator"。	umChar);	"\n", Newline_Pos + 1);	根据换行符和一行最大字符数分割成
Professional Control	Pixel >> 3);	}else (x1Pixel += sx;	8 bottomPixel) (++i) {		若干行,
Ministration Mini		Byte_data = OLED_GDDRAM_CL)	for Cunsigned char y = topPixel;	当循环结束后,将剩余的字符	unsigned char x = PrintRECT.U	x=PrintRECT.left;	
Minimate	for Cu8 i = topPage; i < bottomPa	ONEIPage_PoslIxPixell&C"Byte_	if (e2 < dy) {	y <= bottomPixel; ++y) {	串 "input" 添加到 vector 容	eft;	++4;	1.首先,通过计算 PrintRECT 的宽度
「	ge; ++i) {	data);	err += dx;	for Cunsigned char x = leftPix	器 "vec5tr"中,并返回该容器。	for Cauto & j : PrintBox[i]) {		和高度,计算出最大字符
************************************	OLED_WR_Byte(0xb0 + i, OLED_)	y1Pixel += sy;	el; x <= rightPixel; ++x) {	н	OLED_ShowChar(x, y, j, 8);	if (y >= PrintHight) {	数 Width_MaxNumChar 和最大行
	CMD);		>	putpixel(x, y, false);	3	x+=5;	x=PrintRECT.left;	数 Hight_MaxNumChar。
Part	OLED_WR_ByteC0x00, OLED_CM	if CByte_data == OLED_GDDRAM_	>	>		>	y = PrintRECT.top;	
	D);	CLONE[Page_Pos][xPixel]) retur	3	>		++y;	>	2.然后,通过 strsplit 函数将文本
Page	OLED_WR_Byte(0x10,OLED_CM	ni		3	void OLED::drauPrintBoxO (>	}else {	按照'\n'分割成一个数组。
	D);				BeginBatchDrawO;		OLED_ShowChar(x, y, i, 8);	
「現代の日本の日本の日本の日本の日本の日本の日本の日本の日本の日本の日本の日本の日本の	for Cu8 n = leftPixel; n < rightP	OLED_Set_PosCxPixel, Page_Po	void OLED:rectangleCu8 leftPixel,			EndBatchDrawO;	x += 5;	3.接下来,对于每一个分割后的字符
Manual	ixel;++n) (s);	u8 topPixel, u8 rightPixel, u8 bott	vector<5tring>OLED#strsplitC5tr			>	串,使用 for 循环将其分割成若干
************************************	OLED_WR_ByteCOLED_GDDRA		omPixeU €	ing input, String separator) (sliderPos[0] = static_castKunsi	OLED_GDDRAM_Refresh <mark>(PrintRE</mark>	>	段,每一段不会超过
************************************	M_CLONECIJEnJ, OLED_DATA);	OLED_WR_Byte(statio_castKuns	lineCleftPixel, topPixel, rightPix	vector<5tring>vec5tr;	gned char>C8 × Hight_MaxNumCha	CT.left, PrintRECT.top, PrintRECT.	н	Width_MaxNumChan 个字符。
「	3	igned char><0xb0+Page_Pos>,0	el, topPixel);	while Cinput.indexOfCseparator	r×Cstatio_cast <float>CFirst_Lin</float>	right, PrintRECT.bottom);	>	
Pacific Deptication	3	LED_CMD);	lineCleftPixel, topPixel, leftPixel)⊨- <u>1</u>){	e)			4.对于每一段,使用匿名函数计算出
1	5	OLED_WR_Byte(static_castKuns	, bottomPixel);	unsigned int splitIndex = input		unsigned char x = PrintRECT.lef		需要填充的空格数,并将这一段文本
Control Co		igned char>CCCxPixel & 0xf0>>> 4	lineCrightPixel, topPixel, rightPi	.index0f(separator);	line(PrintRECT,right - 5, PrintRE	t _i	void OLED::setTextBoxCu8 leftPix	加上空格作为一个字符串插入到
Print) (0x10), OLED_CMD);	xel, bottomPixel);	String segment = input.substri	CT.top, PrintRECT.right = 5, PrintR	unsigned char y = PrintRECT.to	el, u8 topPixel, u8 rightPixel, u8 bo	PrintBox 中。
「中の日本の日本の日本の日本の日本の日本の日本の日本の日本の日本の日本の日本の日本の	void OLED::BeginBatchDrauO {Pr	OLED_WR_Byte(static_castKuns	lineCleftPixel, bottomPixel, right	ng(0, splitIndex);	ECT.bottom2;	p¦	ttomPixelD {	
Part	efiendered = true; }	igned char>CCxPixel & 0x0f>:0x0	Pixel, bottomPixel);	vec5tr.push_back(segment);	clearrectangle(PrintRECT.righ		PrintRECT = (leftPixel, topPixel,	5.整个过程循环进行直到所有的文本
Pandered = false()		00, OLED_CMD);	3	input = input.substring(splitIn	t = 3, sliderPos[1], PrintRECT, righ		rightPixel, bottomPixel);	都被分割完成。
Produce of a fast (dex+separator.lengthO);	t, sliderPos[1] + sliderHeight);	unsigned char PrintWidth = stati	First_Line = 0;	
Property	void OLED::EndBatchDrauC) { Pre	OLED_WR_Byte(Byte_data, OLED		>	rectangle(PrintRECT.right - 3,	o_cast <unsigned char=""><0.2 × (Pri</unsigned>		'An' 在代码中的作用是用来将文本
************************************	Rendered = false; >	_DATA);	void OLED::fillrectangleCu8 leftPi	vec5tr.push_backCinput);	sliderPos[0], PrintRECT.right = 1,	ntRECT.right - PrintRECT.left>> ×		分割成若干行,这样就可以按照行来进
Picel, bool enable) く		3	xel, u8 topPixel, u8 rightPixel, u8 b	return vec5tr;	sliderPos[0] + sliderHeight);	5-5;		行分割。
Print			ottomPixel) (unsigned char PrintHight = stati	if (PrintBox.empty() == false) {	
## Company	void OLED::putpixel(u8 xPixel, u8 y			该函数的作用是将一个给定的字符	sliderPos[1] = sliderPos[0];	o_cast <unsigned char=""><0.125 × C</unsigned>	PrintBox.clearO;	
Purple	Pixel, bool enable) €	void OLED::lineCu8 x1Pixel, u8 y1Pi	lineCleftPixel, topPixel, rightPix	串 "input" 根据另一个字符		PrintRECT.bottom - PrintRECT.top	PrintBox.shrink_to_fitO;	
・	if CxPixel > 127 yPixel > 63) net	xel, u8 x2Pixel, u8 y2Pixel) (el, topPixel);	串 "separator" 进行分割,并将分割		D);)	
Unsigned char styl = abs/公寓行体	urn;	unsigned char dx = absCx2Pixel	lineCleftPixel, topPixel, leftPixel	后的每一段字符串存储在一	unsigned char y = PrintRECT.to)	×
unsigned char Byte_data = st		-x1PixeU;	, bottomPixel);	个 vector 容器中。	p¦			
Second Control Cont		unsigned char dy = absCy2Pixel	lineCrightPixel, topPixel, rightPi			unsigned int Newline_Pos = text.i		
「」」 「」」 「」」 「」」 「」」 「」」 「」」 「」」 「」」 「」	unsigned char Byte_data = stat	- y1Pixel);	xel, bottomPixel);	这个函数首先使用 while 循环来检查		ndex0fC"\n",0);	void OLED::printC5tring text, bool	Width_MaxNumChar = static_cas
### short \$y = CylPixel (y2Pixel)? Fine Fine	ic_cast <unsigned char=""><0x01 <<</unsigned>	shortsx=Cx1Pixel <x2pixel)?< td=""><td>lineCleftPixel, bottomPixel, right</td><td>输入字符串中是否存</td><td>for Cunsigned int i = First_Line; i</td><td></td><td>autoScroll) {</td><td>t<unsigned char="">C0.2 × CPrintREC</unsigned></td></x2pixel)?<>	lineCleftPixel, bottomPixel, right	输入字符串中是否存	for Cunsigned int i = First_Line; i		autoScroll) {	t <unsigned char="">C0.2 × CPrintREC</unsigned>
1:-1;	CyPixel %80);	1(-1)	Pixel, bottomPixel);	在 "separator",如果存在,则使	<pre><first_line +="" []cunsigned="" int="" pre="" pri<=""></first_line></pre>	for Cauto &i: text) {		T.right - PrintRECT.left00 - 1;
winsigned char Page_Pos = stati o_coast(unsigned char Page_Pos = stati o_coast(unsigned char YQPixet)		shortsy=Cy1Pixel < y2Pixel)?		用 "input.index0f(separator)" 方	ntBox_size, unsigned int Hight_Ma		BeginBatchDraw <mark>O</mark> ;	
c_cast <unsigned char="">CyPixel> short e2;c= bottomPixel; i++>C用 "input.substringC0, splitIndex" bit</unsigned>		1(-1)		法来找到"separator"	xNumChar) -> unsigned int (unsigned int Text_Pos = static	clearrectangleCPrintRECT.left,	Hight_MaxNumChar = static_cas
3); lineCleftPixel, i, rightPixel, D; "方法来截取从 0 到 "splitIndex"位 xNumChar) EndBatchDrauC; while Ctrue)	unsigned char Page_Pos = stati	shorterr=(dx>dy?dx:-dy)	for Cunsigned char i = topPixel; i	第一次出现的位置,然后使		_cast <unsigned int="">Cstd::distanc</unsigned>	PrintRECT.top, PrintRECT.right, Pr	t <unsigned char="">C0.125 × CPrintR</unsigned>
while (true) (putpixel(x1Pixel, y1Pixel);	o_cast <unsigned char="">(yPixel>></unsigned>	short e2;	<= bottomPixel; i++) (用 "input.substring(0,splitIndex)	if CPrintBox_size < Hight_Ma	e(text.begin(), &i));	intRECT.bottom);	ECT.bottom - PrintRECT.top>>;
putpixelCx1Pixel, y1Pixel); 在 vector 容器 "vec5tr" else if Cx >= PrintWidth Text_Pos for Cauto &i : strsplitCtext, "\n" if Calpixel == x2Pixel && y1Pix 中。接着,使 return Hight_MaxNumChar == Newline_Pos > (这里实现的是首先按照换行符换 >> (if Cenable == true > (el == y2Pixel break; 用 "input = input,substringCsplitIn"; 行,换行符换行完成后检查是否有某行	30;		lineCleftPixel, i, rightPixel, i);	"方法来截取从0到"splitIndex"位	xNumChar)		EndBatchDrawO;	
if Cx1Pixel == x2Pixel & y1Pix 中。接着,使 return Hight_MaxNumChar == Newline_Pos)		while Ctrue) {	3	置的字符串,将截取的字符串存储	return PrintBox_size;			
if Cenable == true) { el == y2Pixel) break; 用 "input = input.substringCsplitIn ; 行, 换行符换行完成后检查是否有某行		putpixel(x1Pixel, y1Pixel);	>	在 vector 容器 "vec5tr"	else	if Cx >= PrintWidth Text_Pos		for Cauto &i:strsplitCtext, "\n"
		if Cx1Pixel == x2Pixel && y1Pix		中。接着,使	return Hight_MaxNumChar	== Newline_Pos> {	这里实现的是首先按照换行符换	≫€
e2 = err;	if Cenable == true) {	el == y2Pixel) break;		用 "input=input.substringCsplitIn	1		行, 换行符换行完成后检查是否有某行	
		e2 = err;		dex + 分割字符的长度2/"更新输入字			超出显示范围,如果有则再对其换行,	

```
for Cunsigned int j = 0; j < i.len
gthO; j += Width_MaxNumChar) {
     PrintBox.push_backCi.subst_void OLED::moveScrollBarCbool di
ringCj, minCj + Width_MaxNumChar, rection) {
i.lengthODD + E3Cunsigned int leng if Cdirection == true && CFirst_L
th, unsigned char Width_MaxNumC ine + Hight_MaxNumChar> < PrintB
har) -> String (
                                ox.sizeO) {
                                   ++First_Line;
       String SpaceChar = "";
                               3 else if Cdirection == false && F
       for Cunsigned int k = lengt | irst_Line > 0) (
h; k < Width_MaxNumChar; ++k) Spa --First_Line;
ceChar += " ";
                                  drawPrintBoxO;
      return SpaceChar;
    3Ci.lengthO, Width_MaxNumC delayCLD;
har));
 sliderHeight = static_castKunsi
gned char>C8 × Hight_MaxNumCha
r × Cstatic_castCfloat>CHight_Ma
xNumChar)
 if CautoScroll == true && PrintB
ox.size() > Hight_MaxNumChar) Fi
rst_Line = PrintBox.sizeO - Hight
_MaxNumChar
 drauPrintBoxO;
void OLED∷clearTextBoxO €
 PrintBox.clear();
 PrintBox.shrink_to_fitO;
 First_Line = 0;
vector<5tring>OLED::getPrintBox
O ( return PrintBox; )
void OLED::replacePrintBoxCvect
or<5tring>newPrintBox> { PrintB
ox = newPrintBox; )
```