## $\boldsymbol{I}$ . How to add language

1. Suppose our new language is French (FRENCH), create a new French header file named "language\_fr.h" under the Language folder, copy and paste all the contents of "language\_en.h" into the "language\_fr.h" file. .

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٩	EXPLORER			
٢	> OPEN EDITORS			
2	✓ BIGTREETOUCHSCREEN			
	> Copy to SD Card root directory to update			
0	> Copy to SD Card root directory to update	- U		
ĺ	> include			
2	✓ TFT			
£	∽ src			
_	> Libraries			
	∨ User			
	✓ API			
5	> Gcode			
	✓ Language			
	C language_am.h	New File		
	C language_cn.h	New Folder		
	C language_cz.h	Reveal in Explorer	Shift+Alt+R	
	C language_de.h C language_en.h	Open in Terminal		
	C language_en.n C language_es.h	Find in Folder	Shift+Alt+F	
	C language_fr.h		Shine Aiter	
	C language_jp.h	Cut	Ctrl+X	
	C language_ru.h	Сору	Ctrl+C	
	C Language.c			
	C Language.h	Copy Path	Shift+Alt+C	
	C utf8_decode.c			
	C utf8_decode.h	Copy Relative Path	Ctrl+K Ctrl+Shift+C	
	> vi	Rename		
	> Vfs	Delete	Delete	
	C boot.c			

2. Change all the 'EN\_' (in English) in "language\_fr.h" to 'FR\_' (representing French), then translate each entry into the corresponding language (translation of the button cannot exceed 10 characters at most, otherwise it cannot Fully displayed), as shown in the figure below, Figure 1 is before modification, and Figure 2 is modified.

EXPLORER	C langua	ge_fr.h ●	$\bigcirc$
> OPEN EDITORS 1 UNSAVED	TFT > src	> User > API > Language >_ C language_fr.	
✓ BIGTREETOUCHSCREEN		ifndef LANGUAGE EN H	
> .pio	e 2 √ #	define LANGUAGE EN H	
> .vscode	3		
> buildroot	4	#define EN_LANGUAGE	"English"
	5	#define EN_HEAT	"Heat"
> Copy to SD Card root directory to update	6	#define EN_MOVE	"Move"
> Copy to SD Card root directory to update - U	7	#define EN_HOME	"Home"
> include	8	#define EN_PRINT	"Print"
✓ TFT	9	#define EN_EXTRUDE	"Extrude" "c"
∽ src	10 11	#define EN_FAN #define EN SETTINGS	"Fan" "Settings"
> Libraries	11	#define EN 5CREEN SETTINGS	"Screen"
∨ User	13	#define EN MACHINE SETTINGS	"Machine"
✓ API	14	#define EN FEATURE SETTINGS	"Feature"
> Gcode	15	#define EN SILENT ON	"Silent On'
✓ Language	16	#define EN SILENT OFF	"Silent Off"
C language_am.h	17	#define EN SHUT DOWN	"Shut Down'
	18	#define EN_RGB_SETTINGS	"LED Color'
C language_cn.h	19	#define EN_RGB_RED	"Red"
C language_cz.h	20	#define EN_RGB_GREEN	"Green"
C language_de.h	21	#define EN_RGB_BLUE	"Blue"
C language_en.h	22	#define EN_RGB_WHITE	"White"
C language_es.h	23	#define EN_RGB_OFF	"LED Off"
C language_fr.h	24	#define EN_GCODE	"Gcode"
C language_jp.h	25	#define EN_CUSTOM	"Custom"
C language_ru.h	26	#define EN_LEVELING	"Leveling"
C Language.c	27 28	#define EN_POINT_1 #define EN POINT 2	"Point 1" "Point 2"
C Language.h	28	#define EN POINT_2 #define EN POINT 3	"Point 2 "Point 3"
C utf8 decode.c	29 30	#define EN POINT_3 #define EN POINT 4	"Point 4"
	31	#define EN ABL	"ABL"
C utf8_decode.h	32	#define EN BLTOUCH	"Bltouch"
> UI	33	#define EN 3LTOUCH TEST	"Test"
> Vfs			

EXPLORER	C language_fr.h $ imes$	2
> OPEN EDITORS	TFT > src > User > API > Language >, C land	uage_fr.h >
✓ BIGTREETOUCHSCREEN	1 #ifndef LANGUAGE FR U	
> .pio	2 #define LANGUAGE FR_U	
> .vscode	3	
> buildroot	4 #define FR_LANGUAGE	"Français"
	5 #define FR_HEAT	"Chauffer"
> Copy to SD Card root directory to update	6 #define FR_MOVE	"Déplacer"
> Copy to SD Card root directory to update - U	7 #define FR_HOME	"Origines"
> include	<pre>8 #define FR_PRINT</pre>	"Impression"
✓ TFT	9 #define FR_EXTRUDE	"Extruder"
∽ src	10 #define FR_FAN	"Ventiler"
> Libraries	11 #define FR_SETTINGS	"Paramètres"
✓ User	12 #define FR_SCREEN_SETTI	
	13 #define FR_MACHINE_SETT	
→ API	14 #define FR_FEATURE_SETT	
> Gcode	15 #define FR_SILENT_ON	"Silent On
✓ Language	16 #define FR_SILENT_OFF	"Silent Off"
C language_am.h	17 #define FR_SHUT_DOWN	"Shut Down
C language_cn.h	18 #define FR_RGB_SETTINGS	
C language_cz.h	19 #define FR_RGB_RED	"Red"
C language_de.h	20 #define FR_RGB_GREEN	"Green"
	21 #define FR_RGB_BLUE	"Blue"
C language_en.h	22 #define FR_RGB_WHITE	"White"
C_language_es.h	23 #define FR_RGB_OFF	"LED Off"
C language_fr.h	24 #define FR_GCODE 25 #define FR_CUSTOM	"Gcode"
C language_jp.h	25 #define FR_CUSTOM 26 #define FR LEVELING	"Custom" "Niveaux"
C language_ru.h	20 #define FR_LEVELING 27 #define FR POINT 1	
C Language.c	27 #define FR_POINT_1 28 #define FR_POINT_2	"Point 1" "Point 2"
C Language.h	28 #define FR_POINT_2 29 #define FR_POINT_3	"Point 3"
C utf8_decode.c	30 #define FR POINT 4	"Point 4"
	31 #define FR ABL	"ABL"
C utf8_decode.h	32 #define FR BLTOUCH	"Bltouch"
> UI	33 #define FR_BLTOUCH_TEST	
> Vfs		Test

3. Add a new language index in the "language.h" file.

EXPLORER	C Language.h $ imes$
> OPEN EDITORS	TFT > src > User > API > Language > C Language.h > 💣unn
✓ BIGTREETOUCHSCREEN 凸 10 戸	1 #ifndef _LANGUAGE_H_
<ul> <li>Copy to 3D card root directory to update</li> <li></li> </ul>	<pre>2 #define LANGUAGE_H_</pre>
> include	3
✓ TFT	<pre>4 #include "stdbool.h"</pre>
✓ src	5 #include "variants.h"
> Libraries	6
∨ User	7
✓ API	8 enum
> Gcode	9 {
	10  ENGLISH = 0,
✓ Language	11 CHINESE,
C language_am.h	12 RUSSIAN,
C language_cn.h	13 JAPANESE, 14 ARMENIAN,
C language_cz.h	14 ARMENIAN, 15 GERMAN,
C language_de.h	16 CZECH,
C language_en.h	17SPAIN
C language_es.h	18 FRENCH,
C language_fr.h	19
C language_jp.h	20 LANGUAGE_NUM,
C language_ru.h	21 };
	22
C Language.c	23 enum
C Language.h	24 {
C utf8_decode.c	25 LABEL_BACKGROUND = -1,
C utf8_decode.h	26 LABEL_LANGUAGE =0 ,
N 10	27 LAREL HEAT

4. Similar to step 2, open the "language.c" file, copy the entire en\_pack[LABEL\_NUM] Language package array, paste and rename it fr\_pack[LABEL\_NUM], and then change all the 'EN\_' in this array to 'FR\_'.

EXPLORER	C Language.c ×
OPEN EDITORS     BIGTREETOUCHSCREEN	62 };
C language_it.h C language_jp.h C language_pl.h C language_pt.h C language_ru.h	<pre>63 64 const char *const es_pack[LABEL_NUM] = { 65  #define X_WORD(NAME) ES_##NAME , 66  #include "Language.inc" 67  #undef X_WORD 68 }; 69</pre>
C language_sk.h	<pre>70 const char *const fr pack[LABEL_NUM] = {</pre>
C Language.c C Language.h C Language.inc	<pre>71 #define X_WORD(NAME) FR_##NAME , 72 #include "Language.inc" 73 #undef X_WORD</pre>
C utf8_decode.c	74    }; 75

5. The mapping relationship of the new language is added. At this point, the new language has been added. After compiling and updating, you can use the new language by switching the language in the setting interface.

EXPLORER	C Language.c ×
<ul> <li>OPEN EDITORS</li> <li>BIGTREETOUCHSCREEN</li> </ul>	62 <b>};</b> 63
C language_it.h C language_jp.h C language_pl.h C language_pt.h C language_ru.h	<pre>64 const char *const es_pack[LABEL_NUM] = { 65  #define X_WORD(NAME) ES_##NAME , 66  #include "Language.inc" 67  #undef X_WORD 68 }; 69</pre>
C language_sk.h C Language.c C Language.h C Language.inc C utf8_decode.c	<pre>70 const char *const fr pack[LABEL_NUM] = { 71    #define X_WORD(NAME) FR_##NAME , 72    #include "Language.inc" 73    #undef X_WORD 74  }; 75</pre>