

7003 MiniLcd Manual

1. DOCUMENT VERSION	2
2. BUILD DEVELOPMENT ENVIRONMENT	3
2.1 ECLIPSE	3
2.1.1 Load dynamic library	3
2.1.2 Load jar file	3
2.2 ANDROID_STUDIO	4
2.2.1 Load dynamic library	4
2.2.2 Load jar file	4
3. USE MINILCD	5
3.1 INTRODUCE MINILCD	5
3.2 CREATE MINILCD	5
3.3 OPEN MINILCD	6
3.4 CLOSE MINILCD	6
4. MINILCD INTERFACE FUNCTION	6
4.1 FUNCTION LIST	6
4.2 FUNCTION DESCRIPTION	8
4.2.1 open	8
4.2.2 clsoe	8
4.2.3 getVersion	9
4.2.4 downloadBootPicture	9
4.2.5 downloadBootPictureByRelativePath	10
4.2.6 downloadBootPictureByAbsolutePath	11
4.2.7 displayBootPicture	12
4.2.8 eraseBootPicture	13
4.2.9 downloadUserPicture	14
4.2.10 downloadUserPictureByRelativePath	15
4.2.11 downloadUserPictureByAbsolutePath	16
4.2.12 displayUserPicture	17
4.2.13 eraseUserPicture	18
4.2.14 fullScreen	19
4.2.15 fullRectangle	20
4.2.16 drawRectangle	21

4.2.17	<i>displayString</i>	22
4.2.18	<i>displayPicture</i>	23
4.2.19	<i>displayPictureByRelativePath</i>	24
4.2.20	<i>displayPictureByAbsolutePath</i>	25
4.2.21	<i>drawLine</i>	26
4.2.22	<i>onTouchEvent</i>	27
4.2.23	<i>offTouchEvent</i>	28

1. Document version

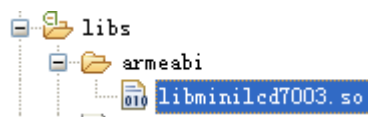
Data	version	author	audit	note
2016-6-1	1.0	chen	edasion	First version
2016-6-27	1.1	chen	edasion	add build development environment of android stuido
2016-8-24	1.2	chen	edasion	add character enlargement parameter to 4.2.16
2017-2-14	1.3	chen	edasion	Modify bug of 4.2.16
2017-4-26	1.4	chen	edasion	1. Add drawline function 2. Add mini TP trace function
2017-5-8	1.5	chen	edasion	Add drawRectangle funtion

2. Build development environment

2.1 Eclipse

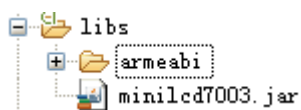
2.1.1 Load dynamic library

In your Android Project, In the libs folder to create a armeabi folder,put libminilcd7003.so in,as shown in the figure.



2.1.2 Load jar file

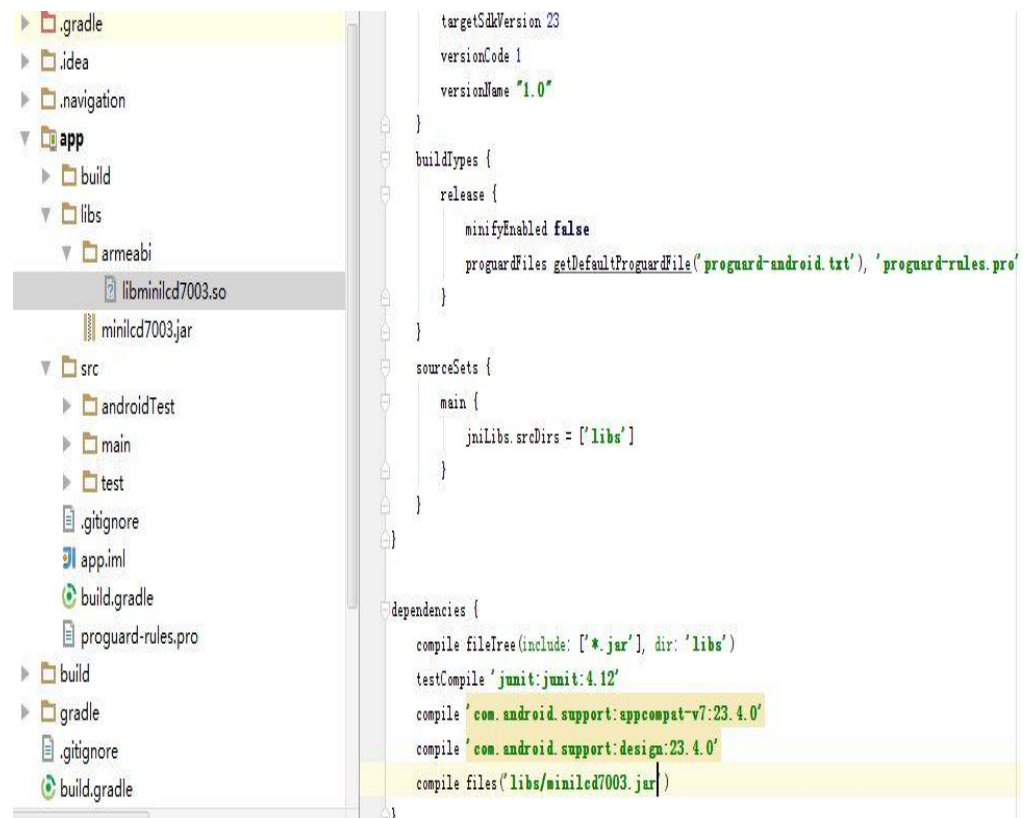
Put minilcd7003.jar into the libs, as shown in the figure.



2.2 Android_studio

2.2.1 Load dynamic library

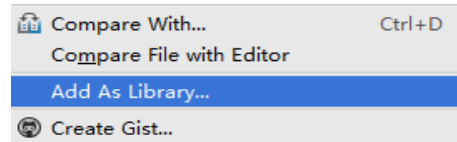
In your Android Project, In the libs folder to create a armeabi folder, put libminilcd7003.so in, and in build.gradle file add sourceSets { main {jniLibs.srcDirs=['libs']} }, as shown in the figure.



2.2.2 Load jar file

Put minilcd7003.jar into the libs, in minilcd7003.jar right click the mouse and Select menu -> add as library jar

file,as shown in the figure.



3. Use MiniLcd

3.1 Introduce MiniLcd

The MiniLcd is 480*320 pixel,so it can display biggest 480 * 320 images,it has 1~10 boot images storage area which can display boot picture when start machine,it also provide 1~38 user images storage area which can display user picture when start your app,we provide PT7003_Tool.apk to you download boot picture and user picture.Of cause,you can do that in your app by MiniLcd API.

3.2 Create MiniLcd

```
MiniLcd minilcd = new MiniLcd ();
```

3.3 Open MiniLcd

`minilcd.open();` if this operation is successful,you can call `miniLcd` to do something you want,please refer to part4.

3.4 Close MiniLcd

One thing is very important,if you no longer use the `minilcd`,you must call `minilcd.close()` to close `minilcd`,or it will consume electricity and reduced life.

4. MiniLcd interface function

4.1 Function list

In `minilcd7003.jar`,it provides many function interface to you use `minilcd`,refer to following table:

no	name	description
1	<code>open</code>	Open scan
2	<code>close</code>	Close scan
3	<code>getVersion</code>	Get Version
4	<code>downloadBootPicture</code>	Download boot picture
5	<code>downloadBootPictureByRelativePath</code>	Download boot picture
6	<code>downloadBootPictureByAbsolutePath</code>	Download boot picture

7	displayBootPicture	Display Boot Picture
8	eraseBootPicture	Erase Boot Picture
9	downloadUserPicture	Download user picture
10	downloadUserPictureByRelativePath	Download user picture
11	downloadUserPictureByAbsolutePath	Download user picture
12	displayUserPicture	Display user picture
13	eraseUserPicture	Erase User Picture
14	fullScreen	Full Screen
15	fullRectangle	Full Rectangle
16	drawRectangle	Draw Rectangle
16	displayString	Display String
17	displayPicture	Display Picture
18	displayPictureByRelativePath	Display Picture
19	displayPictureByAbsolutePath	Display Picture
20	drawLine	Draw Line
21	onTouchTrace	Display mini-TP trace
22	offTouchTrace	Not Display mini-TP trace

4.2 function description

4.2.1 open

function:

```
public int open();
```

description:

Open MiniLcd.

In parameter:

no

out parameter:

no

return value:

-1: fail

0: success

4.2.2 clsoe

function:

```
public int close();
```

description:

Close MiniLcd.

in parameter:

no

out parameter:

no

return value:

-1: fail

0: success

4.2.3 getVersion

function:

static public String getVersion()

description:

Get version of this SDK,note: this

function is static

in parameter:

no

out parameter:

no

return value:

String: SDK version

4.2.4 downloadBootPicture

function:

public int downloadBootPicture(Bitmap bitmap,

int index)

description:

download a picture to MiniLcd boot storage area, When the machine electricity,it will display the picture which you had download before. MiniLcd provides 10 boot storage areas,from 1 to 10

in parameter:

bitmap : download picture

index : which area to storage, It is the scope of 1 to 10

out parameter:

no

return value:

0: success

-1: fail

-2: time out

-3: in parameters error

4.2.5 downloadBootPictureByRelativePath

function:

```
public int downloadBootPictureByRelativePath  
        (String path,  
         int index )
```

description:

the same function of **4.2.4**, the in
parameter is different

in parameter:

path : the relative path of the picture

index : which area to storage, It is the
scope of 1 to 10

out parameter:

no

return value:

0: success

-1: fail

-2: time out

-3: in parameters error

4.2.6 downloadBootPictureByAbsolutePath

function:

```
public int downloadBootPictureByAbsolutePath  
        (String path,  
         int index )
```

description:

the same function of **4.2.4**, the in parameter is different.

in parameter:

path : the absolute path of the picture

index : which area to storage, It is the scope of 1 to 10

out parameter:

no

return value:

0: success

-1: fail

-2: time out

-3: in parameters error

4.2.7 displayBootPicture

function:

```
public int displayBootPicture (int index,  
                                int x ,  
                                int y )
```

description:

display the boot picture

in parameter:

index : the index of boot storage area

x : X coordinate

y : Y coordinate

out parameter:

no

return value:

0: success

-1: fail

-2: time out

-3: in parameters error

4.2.8 eraseBootPicture

function:

```
public int eraseBootPicture (int index)
```

description:

erase the boot picture

in parameter:

index : the index of boot storage area

out parameter:

no

return value:

0: success

-1: fail

-2: time out

-3: in parameters error

4.2.9 downloadUserPicture

function:

```
public int downloadUserPicture(Bitmap bitmap,  
                                int index )
```

description:

download a picture to MiniLcd User storage area, In your app you can display these picture on MiniLcd. MiniLcd provides 38

user storage areas,from 1 to 38.

in parameter:

bitmap : download picture

index : which area to storage, It is the
scope of 1 to 38

out parameter:

no

return value:

0: success

-1: fail

-2: time out

-3: in parameters error

4.2.10 downloadUserPictureByRelativePath

function:

```
public int downloadUserPictureByRelativePath  
                                (String path,  
                                int index )
```

description:

the same function of **4.2.9**, the in

parameter is different

in parameter:

path : the relative path of the picture

index : which area to storage, It is the
scope of 1 to 38

out parameter:

no

return value:

0: success

-1: fail

-2: time out

-3: in parameters error

4.2.11 downloadUserPictureByAbsolutePath

function:

```
public int downloadUserPictureByAbsolutePath  
        (String path,  
         int index )
```

description:

the same function of **4.2.9**, the in

parameter is different.

in parameter:

path : the absolute path of the picture

index : which area to storage, It is the
scope of 1 to 38

out parameter:

no

return value:

0: success

-1: fail

-2: time out

-3: in parameters error

4.2.12 displayUserPicture

function:

```
public int displayUserPicture (int index,  
                                int x ,  
                                int y )
```

description:

display the User picture

in parameter:

index : the index of user storage area

x : X coordinate

y : Y coordinate

out parameter:

no

return value:

0: success

-1: fail

-2: time out

-3: in parameters error

4.2.13 eraseUserPicture

function:

```
public int eraseUserPicture (int index)
```

description:

erase the user picture

in parameter:

index : the index of user storage area

out parameter:

no

return value:

0: success

-1: fail

-2: time out

-3: in parameters error

4.2.14 fullScreen

function:

```
public int fullScreen (int color)
```

description:

full screen by rgb color

in parameter:

color: RGB ---- Color.rgb(r,g,b)

out parameter:

no

return value:

0: success

-1: fail

-2: time out

-3: in parameters error

4.2.15 fullRectangle

function:

```
public int fullRectangle (int x1,  
                           int y1,  
                           int x2,  
                           int y2,  
                           int color)
```

description:

full a rectangle by rgb color

in parameter:

x1 : first point x coordinate

y1 : first point y coordinate

x2 : second point x coordinate

y2 : second point y coordinate

color : RGB ---- Color.rgb(r,g,b)

out parameter:

no

return value:

0: success

-1: fail

-2: time out

-3: in parameters error

4.2.16 drawRectangle

function:

```
public int fullRectangle (int x1,  
                           int y1,  
                           int x2,  
                           int y2,  
                           int color)
```

description:

full a rectangle by rgb color

in parameter:

x1 : first point x coordinate

y1 : first point y coordinate

x2 : second point x coordinate

y2 : second point y coordinate

color : RGB ---- Color.rgb(r,g,b)

out parameter:

no

return value:

0: success

- 1: fail
- 2: time out
- 3: in parameters error

4.2.17 displayString

function:

```
public int displayString ( int  x,  
                           int  y,  
                           int  fontClr,  
                           int  bkClr,  
                           String content,  
                           int  enlargement  
                           )
```

description:

display a string on MiniLcd

in parameter:

x : X coordinate

y : Y coordinate

fontClr : font color

bkClr : background color

String : content of String

enlargement : character enlargement factor

out parameter:

no

return value:

0: success

-1: fail

-2: time out

-3: in parameters error

4.2.18 displayPicture

function:

```
public int displayPicture (int x,  
                           int y,  
                           Bitmap pic )
```

description:

display a picture which in your app project
or other path in android.

in parameter:

x : X coordinate

y : Y coordinate

pic : picture

out parameter:

no

return value:

0: success

-1: fail

-2: time out

-3: in parameters error

4.2.19 displayPictureByRelativePath

function:

```
public int displayPictureByRelativePath (int x,  
                                         int y,  
                                         String path  
                                         )
```

description:

display a picture which in your app prject
or other path in android.

in parameter:

x : X coordinate

y : Y coordinate

path : the relative path of picture

out parameter:

no

return value:

0: success

-1: fail

-2: time out

-3: in parameters error

4.2.20 displayPictureByAbsolutePath

function:

```
public int displayPictureByAbsolutePath (int x,  
                                         int y,  
                                         String path  
                                         )
```

description:

display a picture which in your app project
or other path in android.

in parameter:

x : X coordinate

y : Y coordinate

path : the absolute path of picture

out parameter:

no

return value:

0: success

-1: fail

-2: time out

-3: in parameters error

4.2.21 drawLine

function:

```
public int drawLine (    int x1,  
                        int y1,  
                        int x2,  
                        int y2,  
                        int color)
```

description:

draw a line by rgb color

in parameter:

x1 : first point x coordinate

y1 : first point y coordinate

x2 : second point x coordinate

y2 : second point y coordinate

color : RGB ---- Color.rgb(r,g,b)

out parameter:

no

return value:

0: success

-1: fail

-2: time out

-3: in parameters error

4.2.22 onTouchTrace

function:

public int onTouchTrace (int color)

description:

display mini touch panel trace

in parameter:

color : RGB ---- Color.rgb(r,g,b)

out parameter:

no

return value:

0: success

-1: fail

-2: time out

-3: in parameters error

4.2.23 offTouchEvent

function:

```
public int offTouchEvent ()
```

description:

not display mini touch panel trace

in parameter:

no

out parameter:

no

return value:

0: success

-1: fail

-2: time out

-3: in parameters error