Screen display control

1. Purpose of the experiment

The screen that drives the dog displays graphics and text

2. Experimental path source code

Enter the dog's system, end the dog program, enter "ip (ip is the dog's ip): 8888" in the browser, enter the password "yahboom"

and log in to the path of **/home/pi/DOGZILLA_Lite_class/2.Base Control/01.Small car screen display control** and run **dog_lcd_control.ipynb** .

3. Experimental Phenomenon

1. Draw a slanted straight line

2. Draw a circle

3. Draw a rectangle

4. Display text

5. Show image

4. Analysis of main source code parameters

1. Draw a straight line lcd_line(x1,y1,x2,y2,color=(r,g,b),width=width)

Parameter name	Format	Input range	illustrate
x1,y1,x2,y2	number	x1 x2:[0,320] y1 y2:[0,240]	x1, y1 are the initial point and x2, y2 are the ending point coordinates
color (optional) defaults to white	RGB tuple	rgb:[0,255]	Color is the line color
width (optional) defaults to 2	number	/	Width is the line width

2. Draw a circle lcd_round(center_x, center_y, radius, color=(255, 255, 255), width=2)

Parameter name	Format	Input range	illustrate
center_x, center_y	number	center_x:[0,320] center_y:[0,240]	center_x, center_y are the coordinates of the center of the circle
raduius	number	/	raduius is the radius
color (optional) defaults to white	RGB tuple	rgb:[0,255]	color is color
width (optional) defaults to 2	number	/	Width is the arc width

3. Draw a rectangle lcd_rectangle(x1,y1,x2,y2,fill=None,outline=(255,255,255),width=2)

Parameter name	Format	Input range	illustrate
x1,y1,x2,y2	number	x1 x2:[0,320] y1 y2:[0,240]	x1, y1 are the initial point and x2, y2 are the ending point coordinates
fill (optional) default is none	RGB tuple	rgb:[0,255]	fill is the fill color
outline (optional) defaults to white	RGB tuple	rgb:[0,255]	outline is the line color
width (optional) defaults to 2	number	/	Width is the line width

4. Display text lcd_text(x,y,content,color=(255,255,255),fontsize=15)

Parameter name	Format	Input range	illustrate
x,y	number	xy:[0,320]	x,y are the initial point marks
content	String	/	content is the display content
color (optional) defaults to white	RGB tuple	rgb:[0,255]	color is the text color
fontsize (optional) defaults to 15	number	/	fontsize is the font size

5. Display picture lcd_picture(filename)

Parameter name	Format	illustrate
filename	String	The image file name needs to have a jpg extension, the image file display path is /home/pi/xgoPictures, and the image size is 320*240

If you want to display custom pictures, you need to put the pictures in the path of home/pi/xgoPictures.