

Draw the line

Draw the line

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Example Introduction

In this section, we introduce the `draw_line()` method for drawing lines

API Documentation

The `draw_line` function can be used to draw a line on an image.

- Syntax

```
image.draw_line(x0, y0, x1, y1, color)
```

- Parameter Explanation
 - `x0, y0`: starting point coordinates.
 - `x1, y1`: end point coordinates.
 - `color`: line color.
- Example

```
img.draw_line(10, 10, 100, 100, color=(255, 0, 0)) # Draw a red line
```

Example Code

We use the `Draw_line` method to draw a Yahboom logo

```
# Import required modules
# 导入所需的模块
import time, os, urandom, sys

# Import display and media related modules
# 导入显示和媒体相关模块
from media.display import *
from media.media import *

# Define display resolution constants
# 定义显示分辨率常量
DISPLAY_WIDTH = 640
DISPLAY_HEIGHT = 480

def display_test():
    """
```

Function to test display functionality

测试显示功能的函数

"""

Create main background image with white color

创建白色背景的主图像

img = image.Image(DISPLAY_WIDTH, DISPLAY_HEIGHT, image.ARGB8888)

img.clear()

img.draw_rectangle(0, 0, DISPLAY_WIDTH, DISPLAY_HEIGHT, color=(255, 255, 255), fill=True)

Initialize display with ST7701 driver

使用ST7701驱动初始化显示器

Display.init(Display.ST7701, width = DISPLAY_WIDTH, height = DISPLAY_HEIGHT, to_ide = True)

Initialize media manager

初始化媒体管理器

MediaManager.init()

try:

Draw "Yahboom" string

绘制"Yahboom"字符串

Y字母

设置屏幕宽度变量

Y

Set the screen width variable

screen_width = 640

设置文字粗细和颜色

Set text thickness and color

thickness = 5

text_color = (0, 191, 255)

计算文本的总宽度

Calculate the total width of the text

text_width = 200

计算文本起始位置，使其居中

Calculate the starting position of the text to center it

start_x = (screen_width - text_width) // 2

Y字母

img.draw_line(start_x, 220, start_x + 20, 240, color=text_color, thickness=thickness)

img.draw_line(start_x + 20, 240, start_x + 40, 220, color=text_color, thickness=thickness)

img.draw_line(start_x + 20, 240, start_x + 20, 260, color=text_color, thickness=thickness)

a字母

img.draw_line(start_x + 45, 240, start_x + 65, 240, color=text_color, thickness=thickness)

img.draw_line(start_x + 65, 240, start_x + 65, 260, color=text_color, thickness=thickness)

img.draw_line(start_x + 70, 260, start_x + 45, 260, color=text_color, thickness=thickness)

img.draw_line(start_x + 45, 260, start_x + 45, 240, color=text_color, thickness=thickness)

```

#         img.draw_line(start_x + 50, 260, start_x + 50, 240, color=text_color,
thickness=thickness)

# h字母
img.draw_line(start_x + 80, 220, start_x + 80, 260, color=text_color,
thickness=thickness)
img.draw_line(start_x + 80, 240, start_x + 100, 240, color=text_color,
thickness=thickness)
img.draw_line(start_x + 100, 240, start_x + 100, 260, color=text_color,
thickness=thickness)

# b字母
img.draw_line(start_x + 110, 220, start_x + 110, 260, color=text_color,
thickness=thickness)
img.draw_line(start_x + 110, 240, start_x + 130, 240, color=text_color,
thickness=thickness)
img.draw_line(start_x + 130, 240, start_x + 130, 260, color=text_color,
thickness=thickness)
img.draw_line(start_x + 130, 260, start_x + 110, 260, color=text_color,
thickness=thickness)

# o字母
img.draw_line(start_x + 140, 240, start_x + 160, 240, color=text_color,
thickness=thickness)
img.draw_line(start_x + 160, 240, start_x + 160, 260, color=text_color,
thickness=thickness)
img.draw_line(start_x + 160, 260, start_x + 140, 260, color=text_color,
thickness=thickness)
img.draw_line(start_x + 140, 260, start_x + 140, 240, color=text_color,
thickness=thickness)

# o字母
img.draw_line(start_x + 170, 240, start_x + 190, 240, color=text_color,
thickness=thickness)
img.draw_line(start_x + 190, 240, start_x + 190, 260, color=text_color,
thickness=thickness)
img.draw_line(start_x + 190, 260, start_x + 170, 260, color=text_color,
thickness=thickness)
img.draw_line(start_x + 170, 260, start_x + 170, 240, color=text_color,
thickness=thickness)

# m字母
img.draw_line(start_x + 200, 240, start_x + 200, 260, color=text_color,
thickness=thickness)
img.draw_line(start_x + 200, 240, start_x + 210, 250, color=text_color,
thickness=thickness)
img.draw_line(start_x + 210, 250, start_x + 220, 240, color=text_color,
thickness=thickness)
img.draw_line(start_x + 220, 240, start_x + 220, 260, color=text_color,
thickness=thickness)

# Update display with background image
# 更新显示背景图像
Display.show_image(img)
while True:
    time.sleep(2)

except KeyboardInterrupt as e:

```

```
        print("user stop: ", e)
    except BaseException as e:
        print(f"Exception {e}")

    # Cleanup and deinitialize display
    # 清理并反初始化显示器
    Display.deinit()
    os.exitpoint(os.EXITPOINT_ENABLE_SLEEP)
    time.sleep_ms(100)
    # Release media resources
    # 释放媒体资源
    MediaManager.deinit()

if __name__ == "__main__":
    # Enable exit points and run display test
    # 启用退出点并运行显示测试
    os.exitpoint(os.EXITPOINT_ENABLE)
    display_test()
```

Example running effect

As you can see, we draw a string "Yahboom" in a straight line in the center of the screen



Yahboom

