KBSW183443 SDK-Android

Android SDKAndroid Android

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Android Reference Application

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  - Android Studio 3.1.3
  - Slamware Android SDK: Android SDK
  - RoboStudio():Robostudio installer

    Android StudioAndroid SDKGradle
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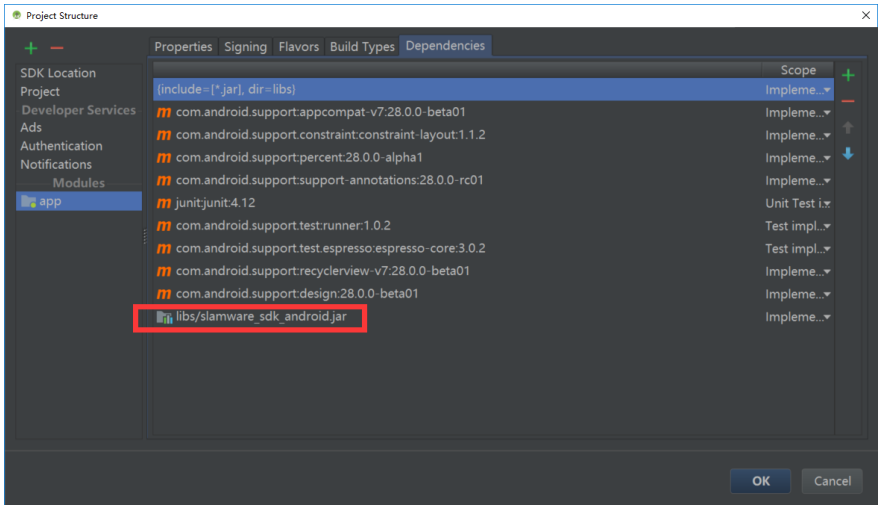
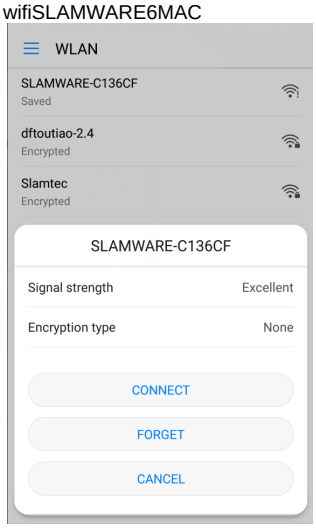
  - Slamware SDP mini
  - Slamware SDP
  - Zeus/Apollo

    Slamware SDKSlamcoreSDK

1. Project Structure --> app --> Dependencies SlamwareSDK



2. wifiSLAMWARE6MAC



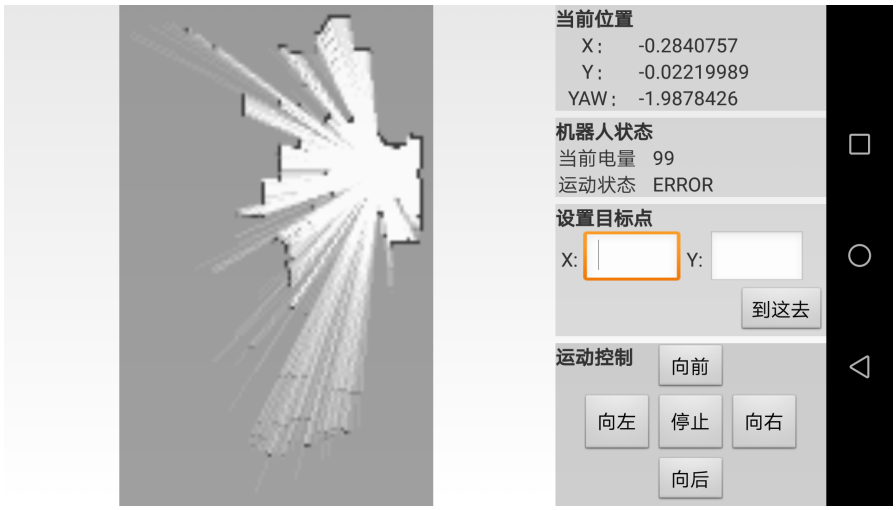
3. “”

wifiAPIP192.168.11.1StationIPIP

IP192.168.11.1

1. ARM×86
2. ARM CPUlibrpsdk.soARM v7 ARM v8SDK
2.

4.



a.

b. XYXY
c.

1.

a.
moveBy“”

```
// go forward
int delayTime = 300;
button_forward.setLongClickRepeatListener(new LongClickButton.LongClickRepeatListener() {
    @Override
    public void repeatAction() {
        try {
            moveAction = robotPlatform.moveBy(MoveDirection.FORWARD);

            System.out.println("repeatAction===============");
        } catch (Exception e) {
            e.printStackTrace();
        }
    }
}, delayTime);
```

b.

```
       button.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                if(targetX.length()==0 || targetY.length()==0) {
                    Toast.makeText(MainActivity.this, "", Toast.LENGTH_SHORT).show();
                } else {
                    try {
                        float x = Float.parseFloat(targetX.getText().toString());
                        float y = Float.parseFloat(targetY.getText().toString());

                        MoveOption moveOption = new MoveOption();
                        moveOption.setPrecise(true);
                        moveOption.setMilestone(true);

                        Log.d(TAG, "Move To");

                        moveAction = robotPlatform.moveTo(new Location(x, y, 0), moveOption, 0);
//                        action.waitUntilDone();
                    } catch (Exception e) {
                        e.printStackTrace();
                    }
                }
            }
        });
```

moveTo“”

2.

Android RunableRunableupdate 100

```
private Handler handler = new Handler();
private Runnable runnable = new Runnable() {
    public void run() {
        this.update();
        handler.postDelayed(this, 100);// 100ms
    }
        ...
}
```

updatePose

```
void update() {
    try {
        /* Pose */
        Pose pose = robotPlatform.getPose();
        current_location_x.setText(Float.toString(pose.getX()));
        current_location_y.setText(Float.toString(pose.getY()));
        current_location_yaw.setText(Float.toString(pose.getYaw()));

        /*  */
        int percentage = robotPlatform.getBatteryPercentage();
        current_battery_percentage.setText(Integer.toString(percentage));
                ...
        } catch(Exception e) {
            ...
        }
}
```

BitmapDrawablegetMaSlamcoderaw dataBitmap ARGB_8888

```
/*  */
int mapWidth =0;
int mapHeight = 0;

RectF knownArea = robotPlatform.getKnownArea(MapType.BITMAP_8BIT, MapKind.EXPLORE_MAP);
map = robotPlatform.getMap(MapType.BITMAP_8BIT, MapKind.EXPLORE_MAP, knownArea);
mapWidth = map.getDimension().getWidth();
mapHeight = map.getDimension().getHeight();

Bitmap bitmap = Bitmap.createBitmap(mapWidth, mapHeight, ARGB_8888);

for (int posY = 0; posY < mapHeight; ++posY) {
    for (int posX = 0; posX < mapWidth; ++posX) {
        // get map pixel
        byte[] data = map.getData();

        // (-128, 127) to (0, 255)

        int rawColor = data[posX + posY * mapWidth];

        rawColor += 128;

        // fill the bitmap data, by data of B/G/R/A
        bitmap.setPixel(posX, posY, rawColor | rawColor<<8 | rawColor<<16 | 0xC0<<24);
    }
}

BitmapDrawable bmpDraw=new BitmapDrawable(bitmap);

imageView.setImageDrawable(bmpDraw);
```

100BitmapDrawable100ms

3--Slamware

6.1-

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