



VEGA X

SOFTWARE SDK USER GUIDE



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This document is based on the demo APK of Vega X released to our customers and serve as a guidance to your software integration.

CAMERA

In the Demo APK sourcedoe- go to app--- src---- main--- java---- com--- example--- vod, then you will see the file “ Main Activity.Java” to find the controlling source codes for the camera.

The below source code is to control the turning on the camera.

```
Intent intent = new Intent();
    intent.setAction(MediaStore.ACTION_IMAGE_CAPTURE);
    startActivity(intent);
    output(1);
```

Definition

startActivity(intent) is to turn on the camera
output(1); is to turn ON the two lights on the camera
output(2); is to turn OFF the two lights on the camera

CAMERA LED LIGHT DEFINITION

Control the ON /OFF of the Camera light DEFINITION. Please go to JNI folder from the DEMO APK source code package.

```
if (tag == 1){
    LOGI("test 1");
    ioctl(fd, IOCTL_CAM_LED, ON);
}else if(tag == 2){
    LOGI("test 2");
    ioctl(fd, IOCTL_CAM_LED, OFF);
}
```

LUMINANCE SENSOR

From the Demo APK source code, you need to go to `app---scr---main---java---com---example---vod---` MainActivity.java”

```
sensorManager = (SensorManager) getSystemService(Context.SENSOR_SERVICE);
```

This is to control Luminance on the panel

```
sensorManager.registerListener(this,sensorManager.getDefaultSensor(Sensor.TYPE_LIGHT),  
SensorManager.SENSOR_DELAY_NORMAL);
```

This is to control Proximity on the panel

```
sensorManager.registerListener(this,sensorManager.getDefaultSensor(Sensor.TYPE_PROXI  
MITY),SensorManager.SENSOR_DELAY_NORMAL);  
}
```

This is to monitor the changes of the luminance and proximity sensors on the device

@Override

```
public void onSensorChanged(SensorEvent event) {  
    float[] values = event.values;  
    StringBuilder stringBuilder;  
  
    int type = event.sensor.getType();  
    switch (type) {  
        case Sensor.TYPE_LIGHT:  
            stringBuilder = new StringBuilder();  
            stringBuilder.append("当前光感强度为 :");  
            stringBuilder.append(values[0]);  
            tv_light.setText(stringBuilder.toString()+"lx");  
            break;  
        case Sensor.TYPE_PROXIMITY:  
            stringBuilder = new StringBuilder();  
            stringBuilder.append("当前距离 :");  
            stringBuilder.append(values[0]);  
            tv_distance.setText(stringBuilder.toString());  
            break;  
    }  
}
```

@Override

```
public void onAccuracyChanged(Sensor sensor, int accuracy) {  
  
}
```

Controlling I/O Input 1 and I/O Input 2

```
public Runnable oneRunnable = new Runnable() {
    @Override
    public void run() {
        int result = input(1);
        System.out.println(result);
        if (result == 1) {
            iv_one.setImageResource(R.drawable.ornignal_green);
            output(3);
        } else {
            iv_one.setImageResource(R.drawable.press_green);
            output(4);
        }
        mHandler.postDelayed(oneRunnable, 500);
    }
};
```

CONTROLLING OF INPUT 2

From "Main Activity.java."

```
public Runnable twoRunnable = new Runnable() {
    @Override
    public void run() {
        int result = input(2);
        if (result == 1) {
            iv_two.setImageResource(R.drawable.ornignal_green);
            output(5);
        } else {
            iv_two.setImageResource(R.drawable.press_green);
            output(6);
        }
        mHandler.postDelayed(twoRunnable, 500);
    }
};
```

DEFINITION OF INPUT 1, INPUT 2, OUTPUT 2, OUTPUT 2

Please find in the folder of JNI under DEMO APK

```
else if(tag == 3){
    ioctl(fd, IOCTL_RELAY_OUT1, ON);
}else if(tag == 4){
    ioctl(fd, IOCTL_RELAY_OUT1, OFF);
}else if(tag == 5){
```

```

        ioctl(fd, IOCTL_RELAY_OUT2, ON);
    }else if(tag == 6){
        ioctl(fd, IOCTL_RELAY_OUT2, OFF);
    }
}
}
}

/*
 * Class:   com_example_vod_MainActivity
 * Method:  input
 * Signature: (I)I
 */
JNIEXPORT jint JNICALL Java_com_example_vod_MainActivity_input
(JNIEnv *env, jobject arg, jint tag){
    if(fd != -1){
        ioctl(fd, IOCTL_RELAY_DRV, ON);
        if(tag == 1){
            num = ioctl(fd, IOCTL_RELAY_IN1);
            return num;
        }else if(tag == 2){
            num = ioctl(fd, IOCTL_RELAY_IN2);
            return num;
        }
    }
}
}
}

```

WIEGAND - MainActivity.java file

This allows you to READ the data from Wiegand input

```
private final String PATH = "/sys/kernel/wiegand/wiegand_read";
```

```

Runnable wiegandRunnable = new Runnable() {
    @Override
    public void run() {
        FileInputStream fileInputStream = null;
        String result = null;
        try {
            fileInputStream = new FileInputStream(PATH);
            byte[] buff = new byte[1024];
            int length = 0;
            while ((length = fileInputStream.read(buff)) != -1){
                result = new String(buff, 0, length);
            }
            Message message = mHandler.obtainMessage();

```

```
        message.what = 0;
        message.obj = result;
        mHandler.sendMessage(message);
        fileInputStream.close();
    } catch (IOException e) {
        e.printStackTrace();
    }
    mHandler.postDelayed(wiegandRunnable,500);
}
};
```

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