

NFC Integration Documentation

Version	Description	Date	Written by
V1.0	Added NFC integration guideline	2023/11/25	Wade Chen

1.Introduction

This documentation is designed to provide developers with instructions on how to read NFC content

Target models

No	Model
1	D4-503 Pro 、D4-504 Pro 、D4-505 Pro
2	Swan 1 Pro
3	Crane 1 16"、Crane 1 21.5"、Crane 1 27"、Crane 1 32"

2.Demo Guide

Read NFC content using Android standard API. Please refer to NfcActivity.java in the source code below.

1. Check if there is NFC device available

```
/**
 * check NFC
 */
public static NfcAdapter NfcCheck(Activity activity) {
    NfcAdapter mNfcAdapter = NfcAdapter.getDefaultAdapter(activity);
    if (mNfcAdapter == null) {
        return null;
    } else {
        if (!mNfcAdapter.isEnabled()) {
            Intent setNfc = new Intent(Settings.ACTION_NFC_SETTINGS);
            activity.startActivity(setNfc);
        }
    }
    return mNfcAdapter;
}
```

2. Initialize NFC configuration information.

```
/**
 * init NFC
 */
```

```

public static void NfcInit(Activity activity) {
    mPendingIntent = PendingIntent.getActivity(activity, 0,
        new Intent(activity, activity.getClass()).addFlags(Intent.FLAG_ACTIVITY_SINGLE_TOP),
        android.os.Build.VERSION.SDK_INT >= 31?PendingIntent.FLAG_MUTABLE:0);
    IntentFilter filter = new IntentFilter(NfcAdapter.ACTION_NDEF_DISCOVERED);
    IntentFilter filter2 = new IntentFilter(NfcAdapter.ACTION_TAG_DISCOVERED);
    try {
        filter.addDataType("*/*");
    } catch (IntentFilter.MalformedMimeTypeException e) {
        e.printStackTrace();
    }
    mIntentFilter = new IntentFilter[]{filter, filter2};
    mTechList = null;
}

```

3. Enabling scheduling in Activity

```

@Override
protected void onResume() {
    super.onResume();
    if (NfcUtils.mNfcAdapter != null){
        NfcUtils.mNfcAdapter.enableForegroundDispatch(this, NfcUtils.mPendingIntent, NfcUtils.mIntentFilter,
NfcUtils.mTechList);
    }
}

```

4. Obtain NFC content

```

@Override
protected void onNewIntent(Intent intent) {
    super.onNewIntent(intent);
    if (NfcUtils.mNfcAdapter != null && intent != null){
        try {
            String str = NfcUtils.readNFCFromTag(intent);
            String nfcId = NfcUtils.readNFCId(intent);
            Log.d("imin_hadrd", "onNewIntent ==str ==>" + str + " ,NFC ID==》 " + nfcId);

            if (nfcId.length() > 0){
                format(number, nfcId);
            } else {
                number.setText("0");
            }
        } catch (UnsupportedEncodingException e) {
            e.printStackTrace();
        }
    }
}

```

5. Turn off shceduling

```

@Override
protected void onPause() {
    super.onPause();
    if (NfcUtils.mNfcAdapter != null){
        NfcUtils.mNfcAdapter.disableForegroundDispatch(this);
    }
}

```

}

}