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
     */
```

```java
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

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

4. Obtain NFC content

```java
@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

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

```
        }
    }
```