

# React Native on Android

## Installing Dev Environment

On ubuntu you can install the android SDK with `apt-get install android-sdk` .

You'll need a target device to test your app against. You can plug it in and use adb to do the hard work. Make sure to install [the Expo App](#) on your target device - this will serve as a host on the device that allows it to run your new app in development and do hot-reloading of your code.

## Creating a Project

Using npx [create a new project with the tooling provided by React Native](#) like so:

```
npx create-expo-app AwesomeProject
cd AwesomeProject
npm start # you can also use: npx expo start
```

## Running the Project

Start the app with `npm run android` you might get error messages about not knowing where android home is. On ubuntu android home installed from deb packages is normally at `/usr/lib/android-sdk` ([source](#)) so just run:

```
export ANDROID_HOME=/usr/lib/android-sdk
```

 before you try to launch the app.

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## Theming

I'm looking at using [Native Base](#) as a component library in my apps.

## Persisting Data

React Native is pretty modular so you need to use libraries to do most things. Use [a storage library](#) to store data. This [MMKV storage library](#) appears to be pretty efficient and allows you to store state across multiple databases very easily and quickly

## Navigation

Using [react-navigation](#) to manage navigation within the app and show different views. The [hello world tutorial](#) shows how this works

## Using the Camera

The [expo-camera](#) library seems to be a nice way to do cross-device camera stuff. I got it working very quickly.

### Working Minimal Example Camera App

```
import { StatusBar } from 'expo-status-bar';
import { Camera, CameraType } from 'expo-camera';
import { useState } from 'react';
import { Button, StyleSheet, Text, TouchableOpacity, View } from 'react-native';

export default function App() {
  const [type, setType] = useState(CameraType.back);
  const [permission, requestPermission] = Camera.useCameraPermissions();

  if (!permission) {
    return (<View><Text>No camera m8</Text></View>)
  }

  if (!permission.granted) {
    return(<View>
      <Text>Clicky to grant perms m8</Text>
      <Button title='Grant Perms' onPress={requestPermission}/>
    </View>)
  }

  function toggleCameraType() {
    setType(current => (current === CameraType.back ? CameraType.front : CameraType.back));
  }
}
```

```

}

return (
  <View style={styles.container}>
    <Camera style={styles.camera} type={type}>
      <View style={styles.buttonContainer}>
        <TouchableOpacity style={styles.button} onPress={toggleCameraType}>
          <Text style={styles.text}>Flip Camera</Text>
        </TouchableOpacity>
      </View>
    </Camera>
  </View>
);
}

const styles = StyleSheet.create({
  container: {
    flex: 1,
    justifyContent: 'center',
  },
  camera:{
    flex: 1,
  },
  button: {
    flex: 1,
    alignSelf: 'flex-end',
    alignItems: 'center',
  },
  buttonContainer: {
    flex: 1,
    flexDirection: 'row',
    backgroundColor: 'transparent',
    margin: 64,
  },
  text:{

  }
});

```

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