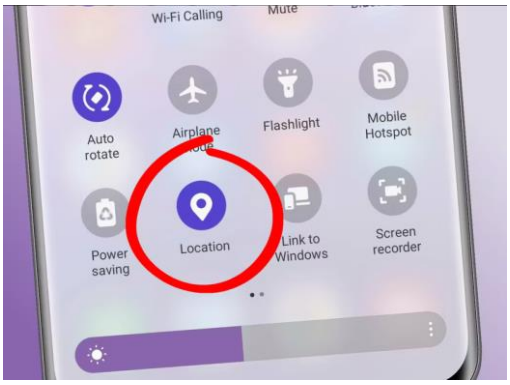
Introduction

The aim of this tutorial is to retrieve data sent by a BLE Bluetooth device to a mobile application developed on App inventor.

BLE cannot communicate directly with conventional Bluetooth modules. For our example, we've used a device that integrates a BLE module for Bluetooth, whose characteristics we don't know except that it uses the GATT communication protocol.

To find out more about bluetooth and the GATT protocol, click here:
https://learn.adafruit.com/introduction-to-bluetooth-low-energy/gatt

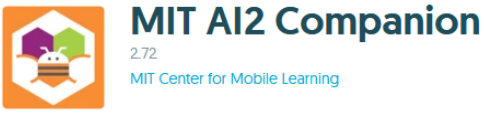
Location needs to be enabled for Bluetooth Low Energy Scanning on Android



Install nRF Connect App

https://play.google.com/store/apps/details?id=no.nordicsemi.android.mcp&hl=en_U

Install MIT AI2 Companion



https://play.google.com/store/apps/details?id=edu.mit.appinventor.aicompanion3&hl=fr

Create a account on MIT App inventor

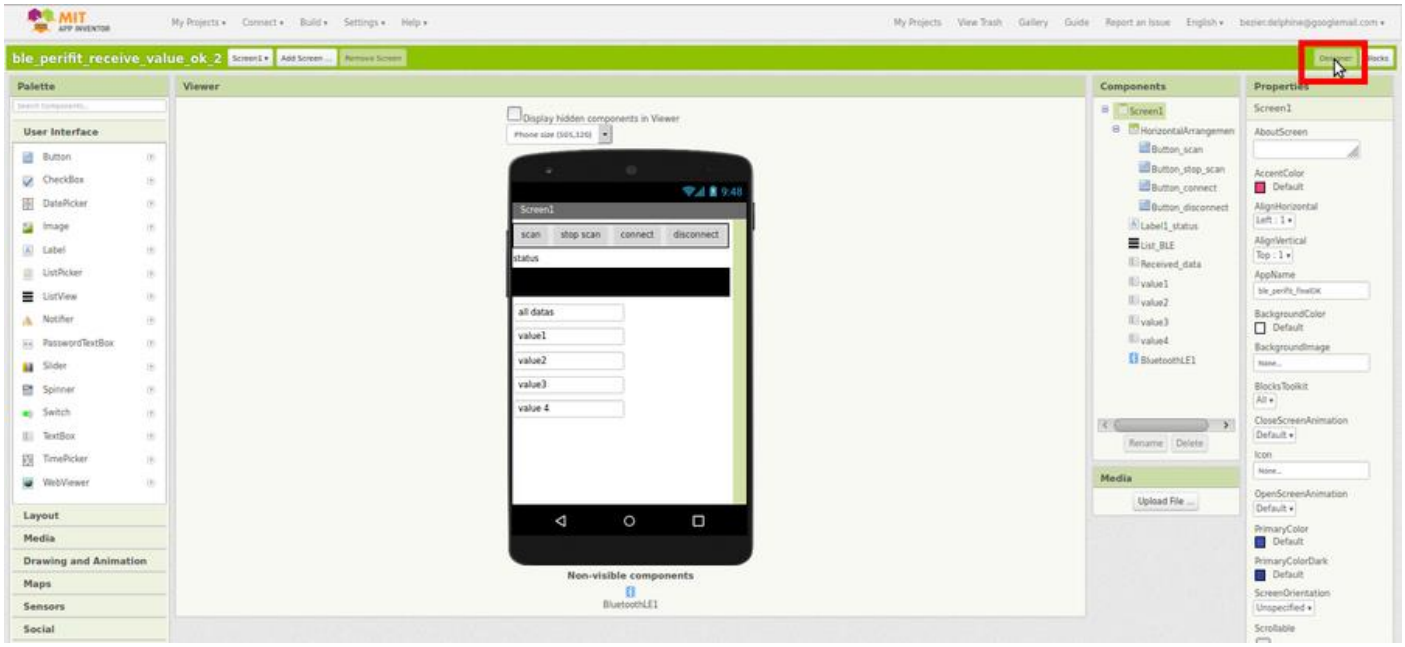
https://ai2.appinventor.mit.edu

Download Bluetooth LE extension

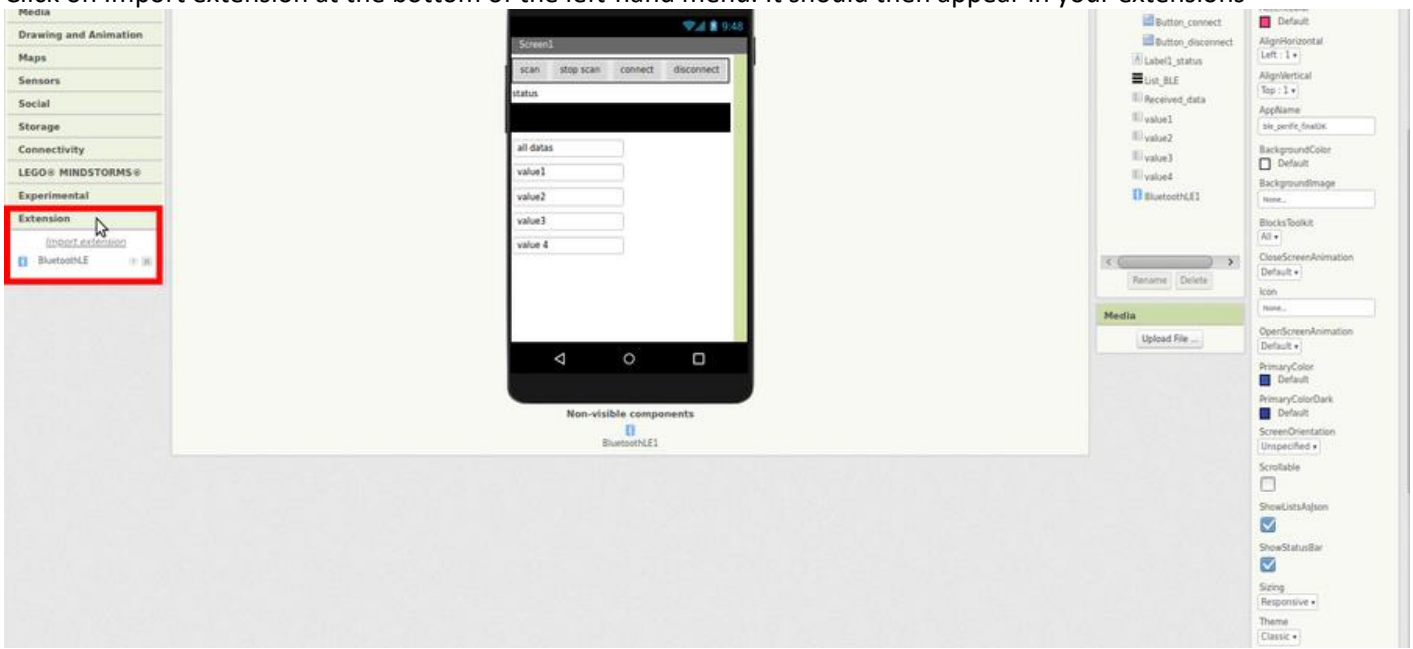
iot.appinventor.mit.edu/assets/resources/edu.mit.appinventor.ble.aix

Import extension into App inventor

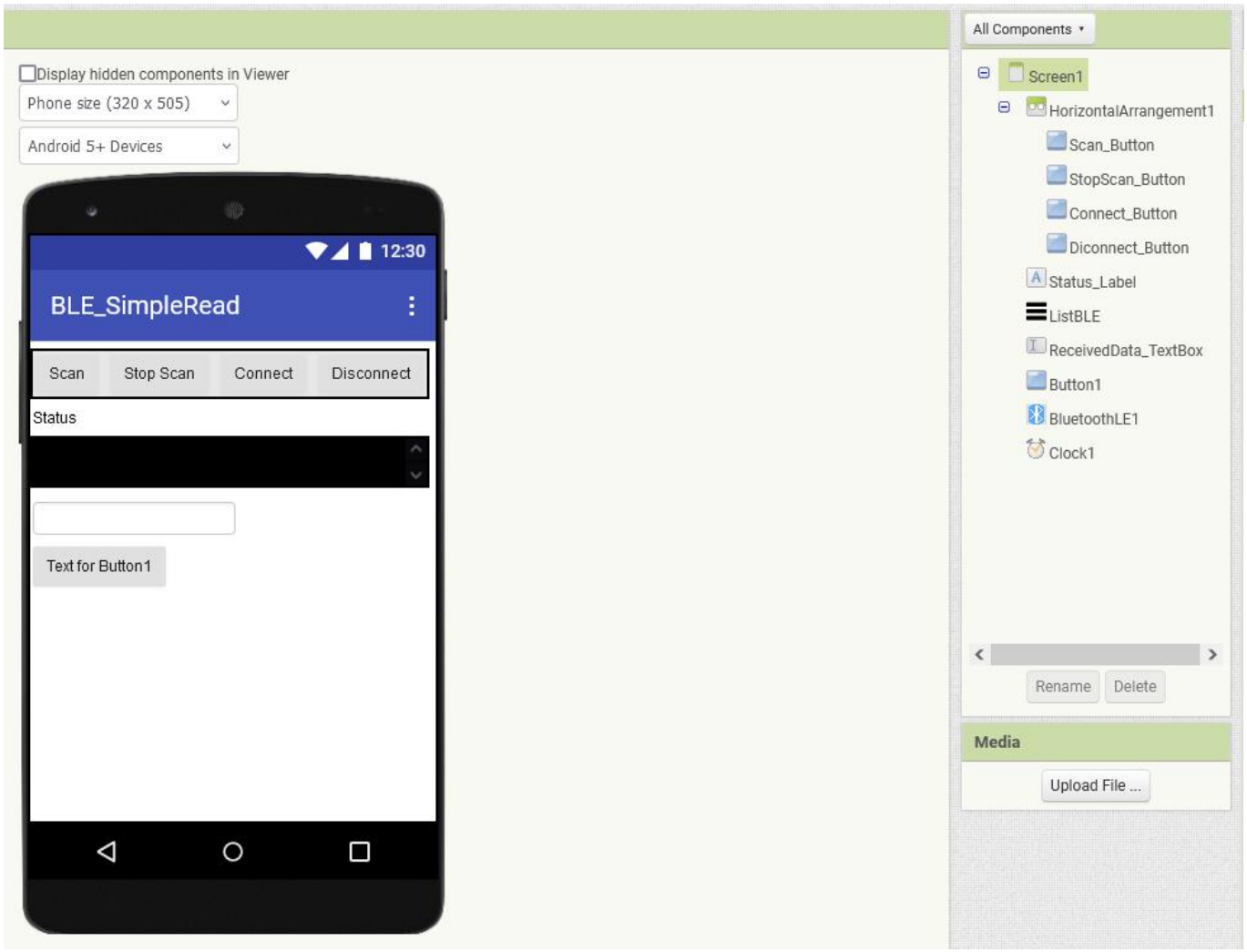
Select the “Designer” view at top right

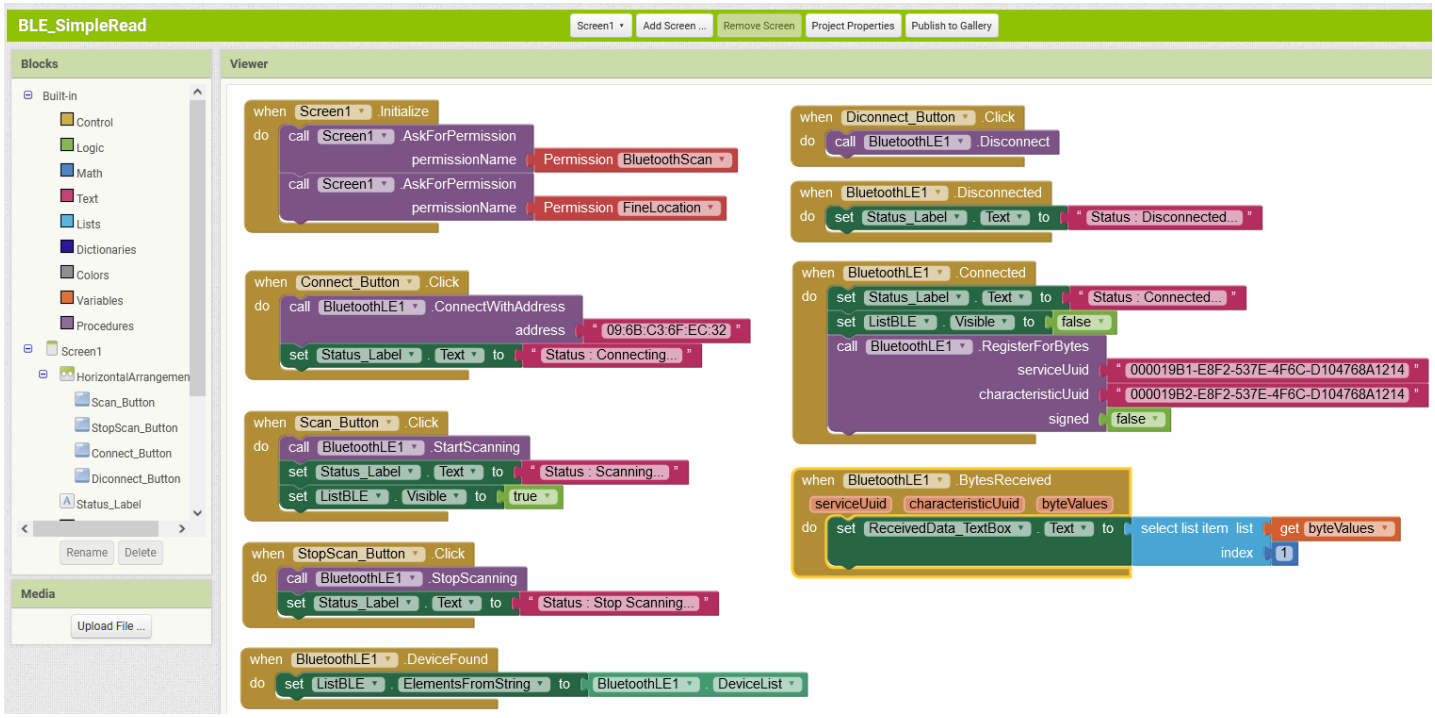


Click on Import extension at the bottom of the left-hand menu. It should then appear in your extensions



Programming the application





Other Examples

https://www.youtube.com/watch?v=UOnW6bUhXQc

https://www.youtube.com/watch?v=YAkjOktFXOo