

# App inventor

Desenvolvimento de app para Android

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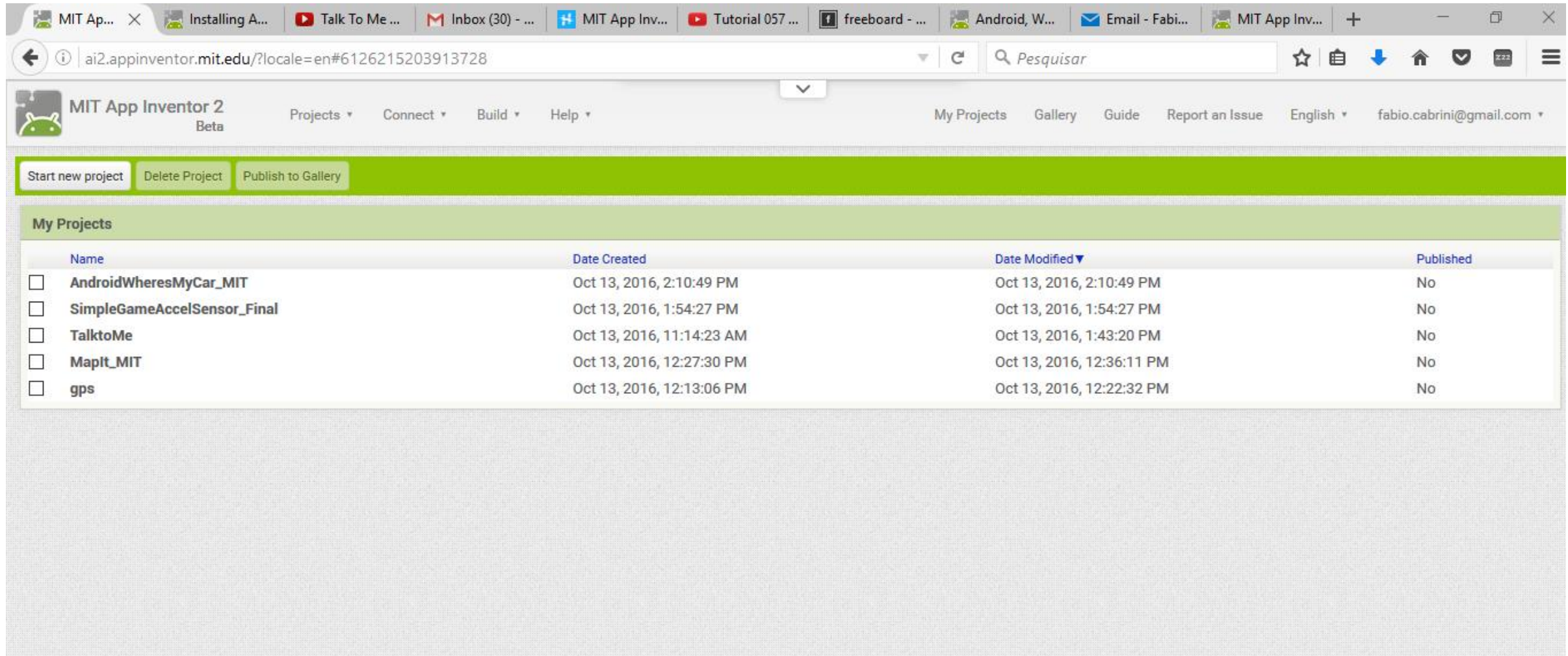


# App inventor

- Plataforma desenvolvida pelo MIT
- Utiliza programação por blocos
- Desenvolvimento de aplicativos para Android
- Interface web ou desktop
- Emulação ou execução no próprio smartphone



# Interface de desenvolvimento - Projects



The screenshot shows the MIT App Inventor 2 Beta web interface. The browser's address bar displays the URL `ai2.appinventor.mit.edu/?locale=en#6126215203913728`. The interface includes a top navigation bar with the MIT App Inventor logo, a 'Beta' label, and menu items for 'Projects', 'Connect', 'Build', and 'Help'. On the right side of the navigation bar, there are links for 'My Projects', 'Gallery', 'Guide', 'Report an Issue', 'English', and a user profile for 'fabio.cabrini@gmail.com'. Below the navigation bar, there is a green bar with three buttons: 'Start new project', 'Delete Project', and 'Publish to Gallery'. The main content area is titled 'My Projects' and contains a table with the following data:

	Name	Date Created	Date Modified ▼	Published
<input type="checkbox"/>	AndroidWheresMyCar_MIT	Oct 13, 2016, 2:10:49 PM	Oct 13, 2016, 2:10:49 PM	No
<input type="checkbox"/>	SimpleGameAccelSensor_Final	Oct 13, 2016, 1:54:27 PM	Oct 13, 2016, 1:54:27 PM	No
<input type="checkbox"/>	TalktoMe	Oct 13, 2016, 11:14:23 AM	Oct 13, 2016, 1:43:20 PM	No
<input type="checkbox"/>	MapIt_MIT	Oct 13, 2016, 12:27:30 PM	Oct 13, 2016, 12:36:11 PM	No
<input type="checkbox"/>	gps	Oct 13, 2016, 12:13:06 PM	Oct 13, 2016, 12:22:32 PM	No

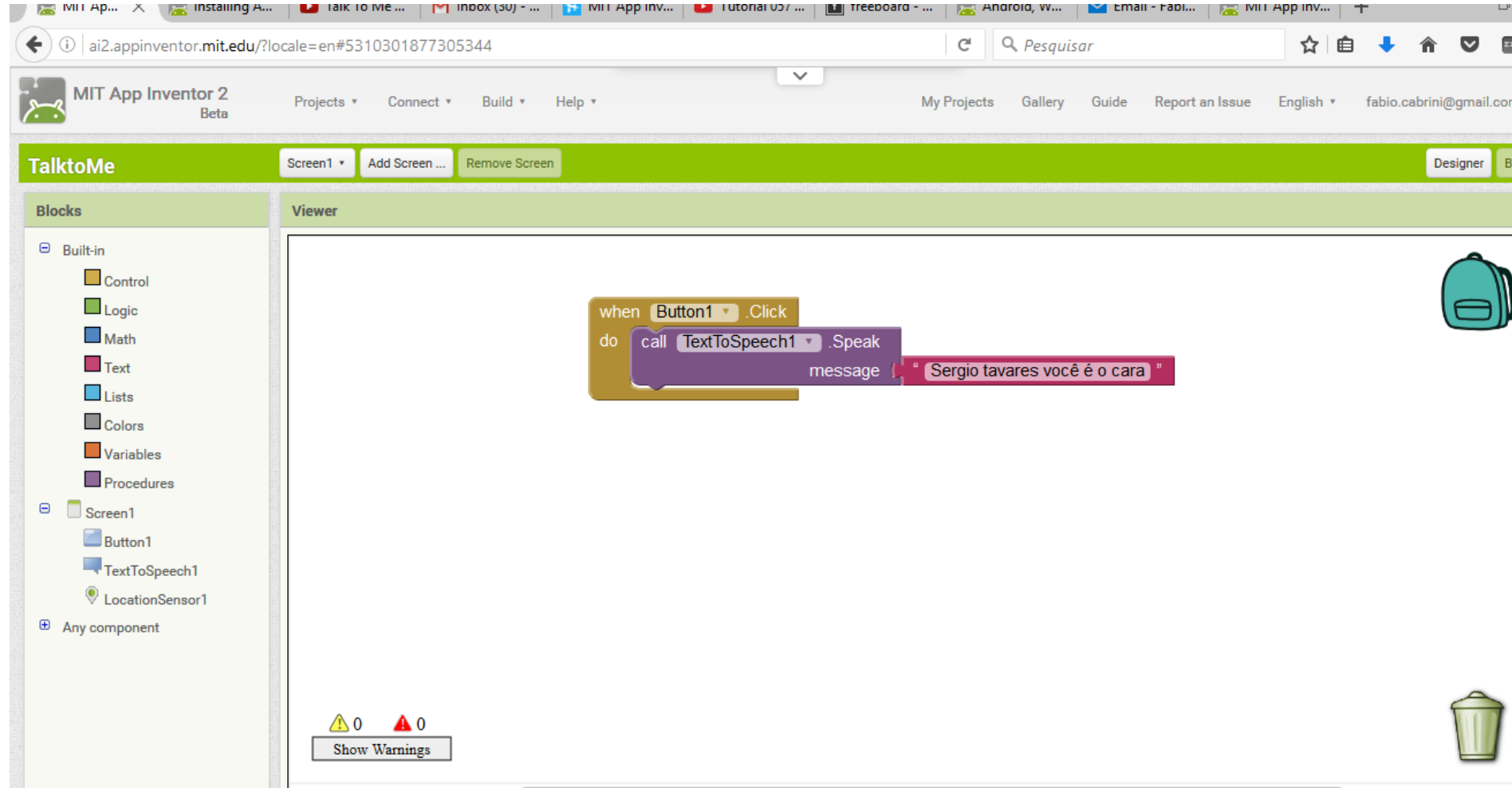
# Interface de desenvolvimento - app

The screenshot displays the MIT App Inventor 2 Beta web interface. At the top, the header includes the MIT App Inventor 2 Beta logo, navigation links (Projects, Connect, Build, Help), and user information (My Projects, Gallery, Guide, Report an Issue, English, and email: fabio.cabrini@gmail.com).

The main workspace is divided into four panels:

- Palette:** A list of user interface components under the 'User Interface' category, including Button, CheckBox, DatePicker, Image, Label, ListPicker, ListView, Notifier, PasswordTextBox, Slider, Spinner, TextBox, TimePicker, and WebView.
- Viewer:** A central area showing a preview of the app. It includes a status bar at the top with a 'Screen1' dropdown, 'Add Screen ...', and 'Remove Screen' buttons. Below this, there are checkboxes for 'Display hidden components in Viewer' and 'Check to see Preview on Tablet size.' The main preview area shows a mobile screen with a status bar displaying 'Screen1' and a 'TalkToMe' label.
- Components:** A list of components currently on the screen, including 'Screen1', 'Button1', 'TextToSpeech1', and 'LocationSensor1'. At the bottom of this panel are 'Rename' and 'Delete' buttons.
- Properties:** A panel showing the properties of the selected component, 'Screen1'. It includes fields for 'AboutScreen', 'AlignHorizontal' (Left: 1), 'AlignVertical' (Top: 1), 'AppName' (TalktoMe), 'BackgroundColor' (White), 'BackgroundImage' (None...), 'CloseScreenAnimation' (Default), 'Icon' (None...), and 'OpenScreenAnimation' (Default).

# Interface de desenvolvimento – Block Programming



# Sensors

The screenshot shows the MIT App Inventor web interface. The browser's address bar displays `ai2.appinventor.mit.edu/?locale=en#5310301877305344`. The interface is divided into two main sections: a **Palette** on the left and a **Viewer** on the right.

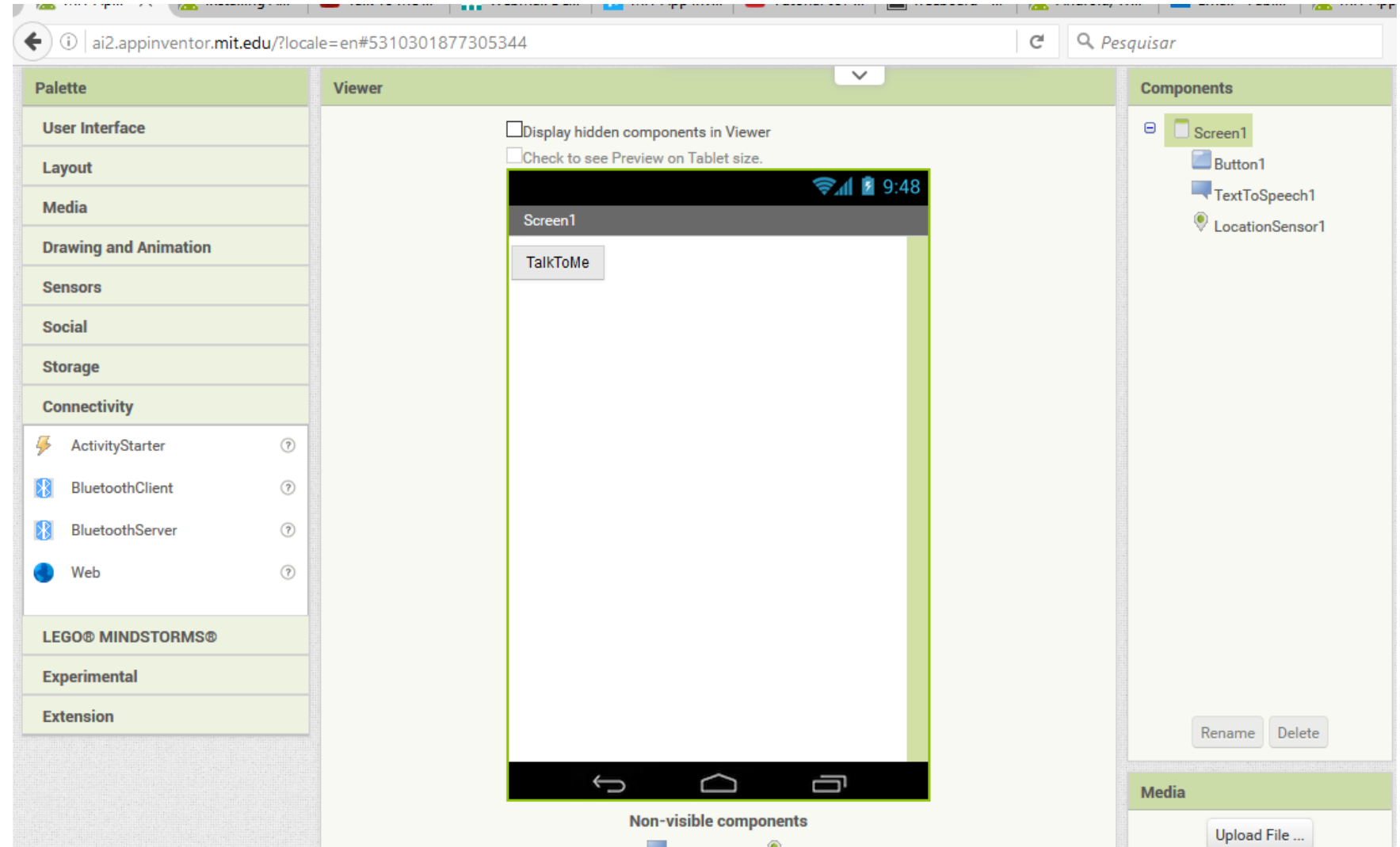
The **Palette** section contains several categories of components:

- User Interface**
- Layout**
- Media**
- Drawing and Animation**
- Sensors** (highlighted):
  - AccelerometerSensor
  - BarcodeScanner
  - Clock
  - GyroscopeSensor
  - LocationSensor
  - NearField
  - OrientationSensor
  - Pedometer
  - ProximitySensor
- Social**
- Storage**
- Connectivity**

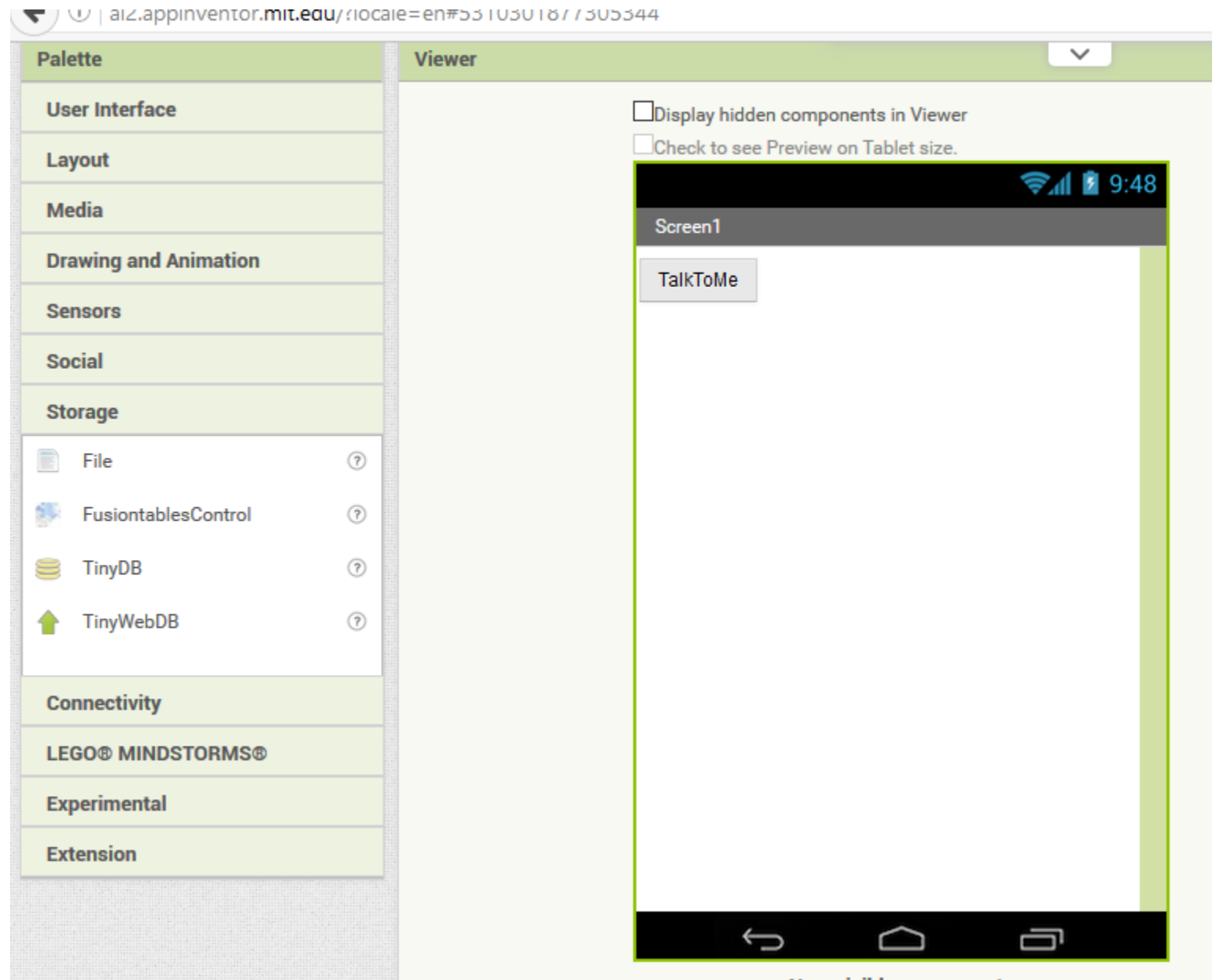
The **Viewer** section shows a preview of the mobile app. At the top, there are checkboxes for ☐ Display hidden components in Viewer and ☐ Check to see Preview on Tablet size. Below these, a mobile screen is shown with a status bar at the top displaying signal strength, battery, and the time 9:48. The screen is titled "Screen1" and contains a single button labeled "TalkToMe". At the bottom of the screen is an Android-style navigation bar with back, home, and recent apps icons.

Below the mobile preview, the text "Non-visible components" is displayed.

# Connectivity



# Storage





# Web REST

The image displays a Scratch-like IDE interface with a 'Blocks' panel on the left and a 'Viewer' panel on the right.

**Blocks Panel:**

- Built-in:**
  - Control
  - Logic
  - Math
  - Text
  - Lists
  - Colors
  - Variables
  - Procedures
- Screen1**
  - VerticalArrangement1**
    - ButtonOn
    - ButtonOff
  - Web1**
- Any component**

Buttons: Rename, Delete

**Media**

Upload File ...

**Viewer Panel:**

**Global Variables:**

- serverURL: https://api.particle.io/v1/devices/
- deviceId: Your Device ID
- accessToken: Your Access Token
- Fun: led
- Var: on
- HTTP\_Reply:
- PINstate:

**Event-driven Logic:**

- when ButtonOn Click**
  - do set global Var to on
  - call SendToParticle
- when ButtonOff Click**
  - do set global Var to off
  - call SendToParticle

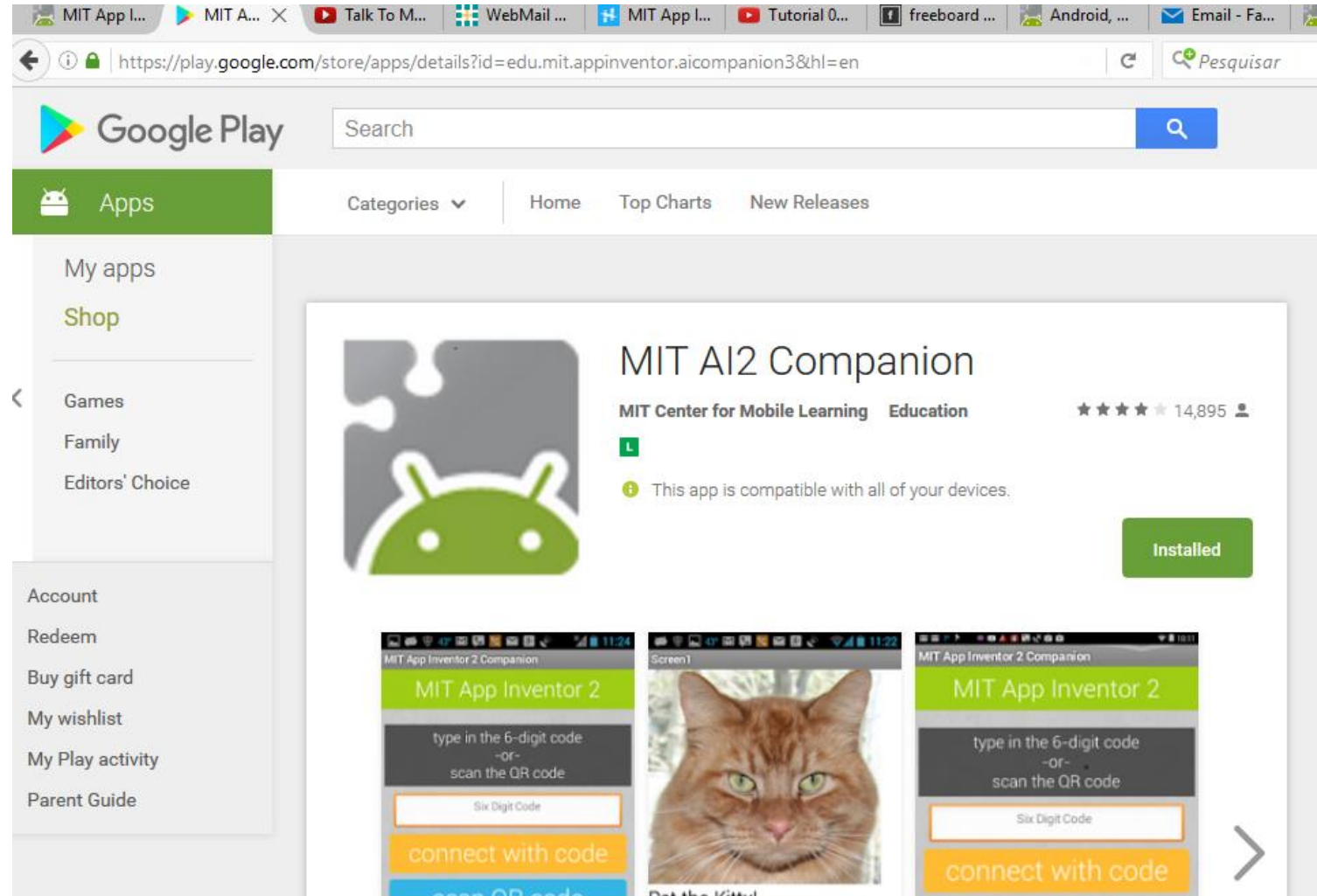
**Procedure: to SendToParticle**

do

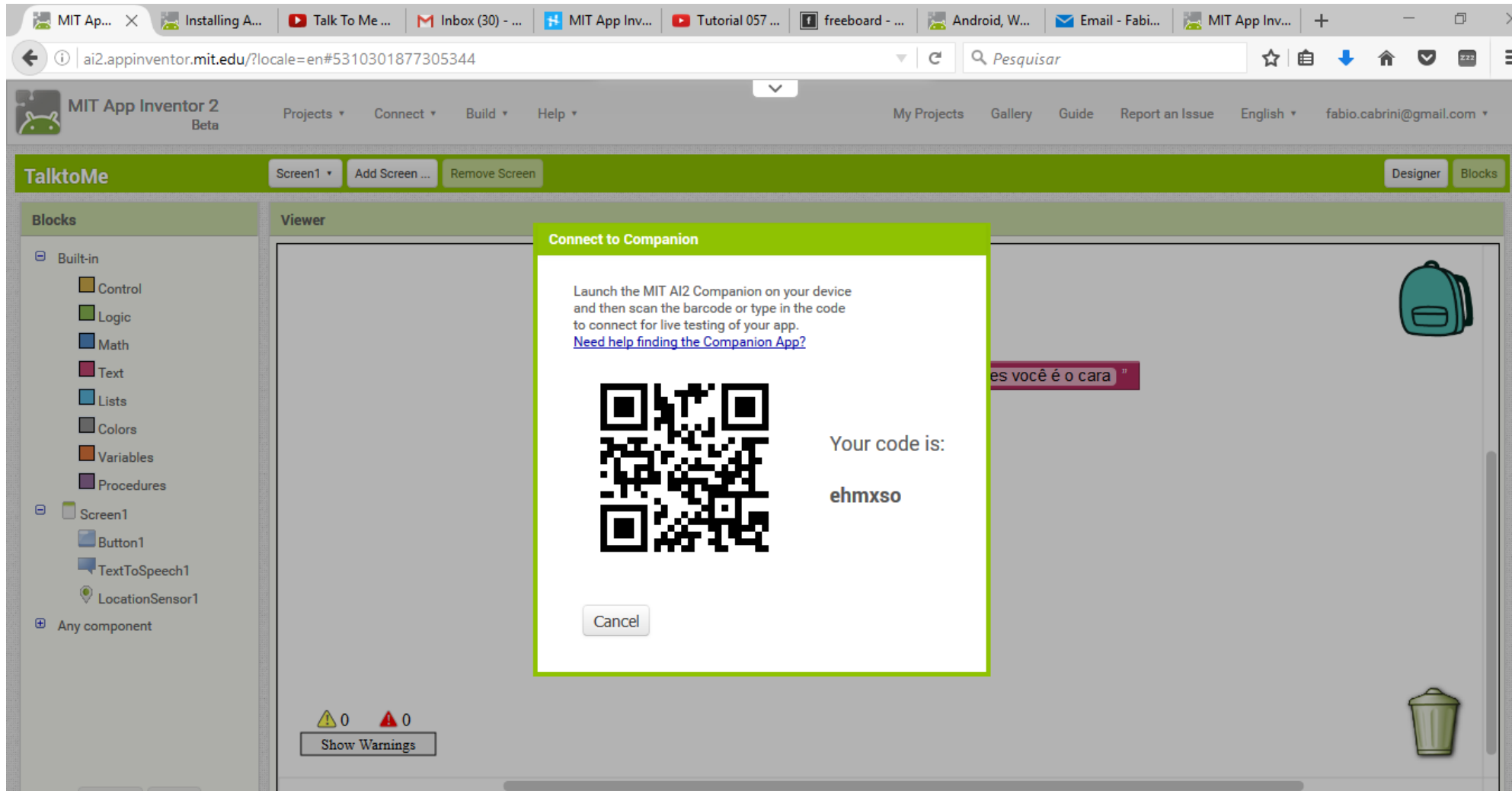
- set Web1 . Uri to [join [join [get global serverURL] [get global deviceId] [get global Fun] ?access\_token= [get global accessToken]]]
- call Web1 . PostText [join [params= [get global Var]]]

Warning icons: 0 (yellow triangle), 0 (red triangle). Button: Show Warnings.

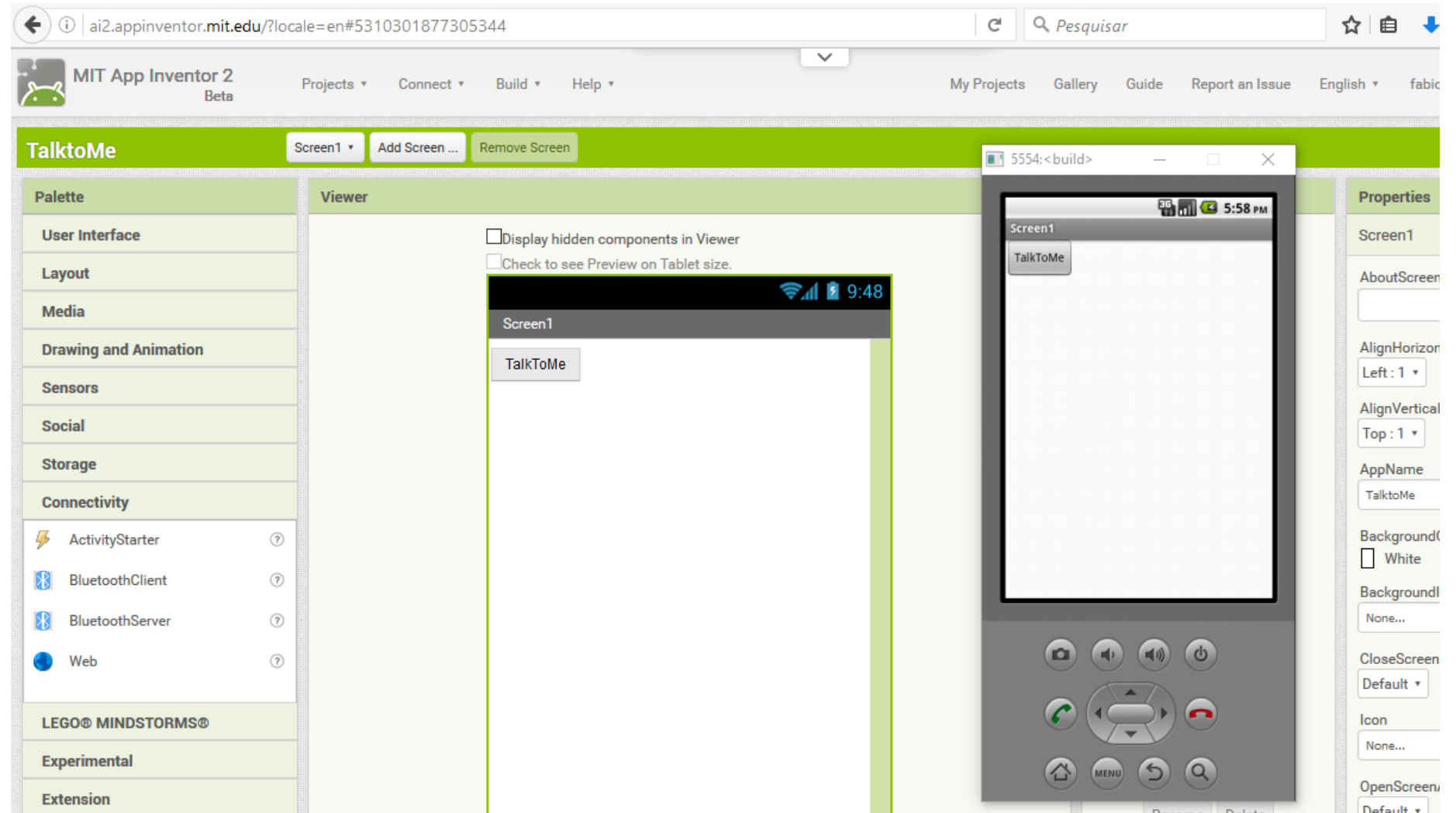
# MIT AI2 Companion



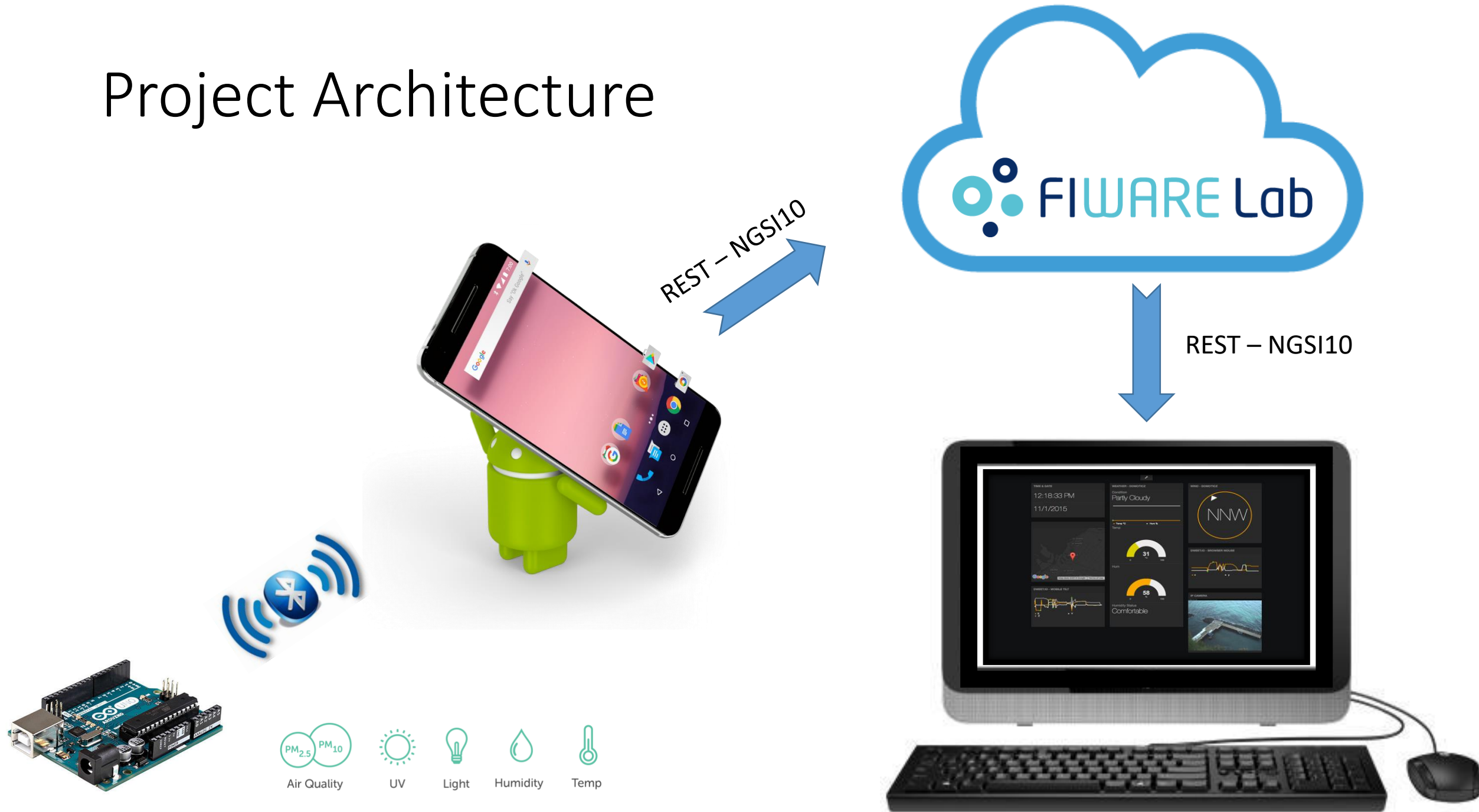
# Interface de desenvolvimento – Connect to device QRcode or USB



# Emulator



# Project Architecture



# Obrigado

[appinventor.mit.edu](http://appinventor.mit.edu)