Introduction to MIT App Inventor 2

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Getting Started

• AppInventor.org
  http://www.appinventor.org/ →
  – LOGIN with your Google account
  – Follow the tutorial & build “I Have A Dream” App
  – Follow the course!
Getting Started

The App Inventor Course-in-a-Box

Self-Directed Learners

Never coded but want to learn how to build apps? Then you've come to the right place. This course targets beginners of all ages and starts at the very beginning--setting up App Inventor. With video and text-based lessons, Professor Wolber will step you through building progressively more complex apps. You'll learn how to build many types of apps and you'll learn programming concepts and terminology.

Start learning with the "I Have Dream" Tutorial →

Modules

Module 1: Introduction to AI2 and Event-Driven Programming
Your Project Site

More Example!

<table>
<thead>
<tr>
<th>Name</th>
<th>Date Created</th>
<th>Date Modified</th>
</tr>
</thead>
</table>
Start A New Project - TalktoMe
Complete the Interface – Building the Designer

Add a button

Add an image

Your Components

Component Property
Build A Quick App - Blocks

This is the Design

Click on TextToSpeech1 under Screen1, and drag this here!

This is just a "text String". Go to TEXT under Built-in and pick the first block. You can change the text to anything you like!

Get his from Button1 (under Screen1) and drag it here!

Click on AccelerometerSensor1 under Screen1, and drag this here!
Creating the QR Code for the Package
Programming Your Device

Must download MIT AI@ Companion on your mobile device
Program Your Device

When you start the Companion on your phone, it will look like (1). Back in App Inventor, choose "Connect" (2) then "AI Companion. This will cause a QR code to appear (3) You can then scan the QR code (4) with your phone to see your app live. NOTE: for live testing to work, **both your computer and phone/tablet must be connected to the same WiFi station.** Using WiFi is the easiest way to connect, but if you're at school/work you may have firewall issues.

http://www.appinventor.org/IHaveADreamTut
Creating the QR Code for the Package
On Your Android

• Google Play ➔ Download MIT AI2 Companion
• Open the application
• Make sure you get a URL address
• Press **Scan QR Code**
• Then press **Connect with Code**
Your APP

• Make sure your phone is setup to download applications from non-secure sources!
• Find the downloaded APP on your phone and run it!
• This is how your app looks like:
Another Example....
USB Interface
The Designer

Viewer

initialize global (boolServer) to false
when Screen1 .Initialize do
to init do call when BluetoothServer1 .Con...
to connected trueOrFalse...
to disconnect do call when Screen1 .ErrorOccurrence

when lipConnect .BeforePick do call send message do if get...
to print textToPrint do s...
when Clock1 .Time do call send message “L”
to send message do if get...

when btnSend .Click do call send message “L”
when btnLeft .Click do call send message “L”
when btnRight .Click do call send message “R”
when btnUp .Click do call send message “U”
when btnDown .Click do call send message “D”
when btnStop .Click call send message “S”
when btnExit .Click do call
when btnDisconnect .Click ...
when Screen1 .ErrorOccurrence

Event raised when an error occurs. Only some errors will raise this condition. For those errors, the system will show a notification by default. You can use this event handler to prescribe an error behavior different than the default.
Download the App on your phone!

1-Create the .apk
2-Upload to your phone using USB cable
3-Run the application on the phone
Pairing Your Phone & Computer

• Remove the phone device from your BT connections

• Make sure your phone’s BT is on and it is discoverable

• Make sure your computer is not paired with any other devices (mouse, keyboard, etc.)
Basic Idea

Making your first APP:
http://appinventor.mit.edu/explore/ai2/hellopurr.html
Block Architecture
References:

• AppInventor.org
  http://www.appinventor.org/ → LOGIN with your Google account

• Other Tutorials:
  http://appinventor.mit.edu/explore/ai2/beginner-videos.html

• Exploring AppInventor
  http://appinventor.mit.edu/explore/