

App Inventor 2

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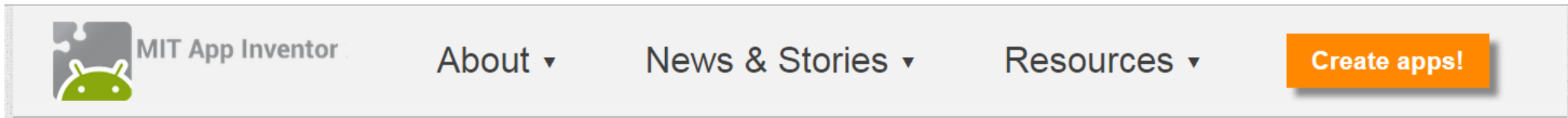
<http://appinventor.mit.edu/explore/>

What is App Inventor?

- App Inventor is a FREE Web-based program for creating applications for Android devices.
- App Inventor is an EASY way to introduce programming to young students.
- App Inventor is FUN for students (and teachers) because they can demonstrate their creativity to others.
- Google created this language, and gave it to M.I.T., where it has been improved.

How do you Get Started?

- Start at the App Inventor website: appinventor.mit.edu



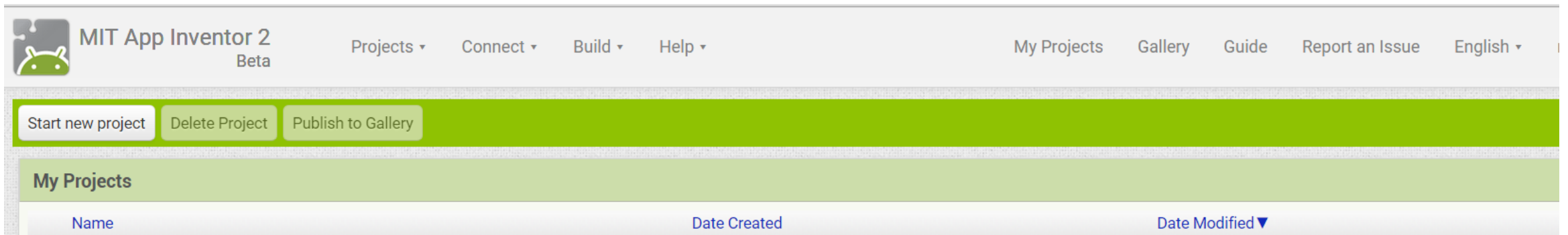
- Because it's Web-based, you (and your students) will need Google accounts to save your work. Select the [Create apps](#) button.

When you login for the first time, you will see two screens.

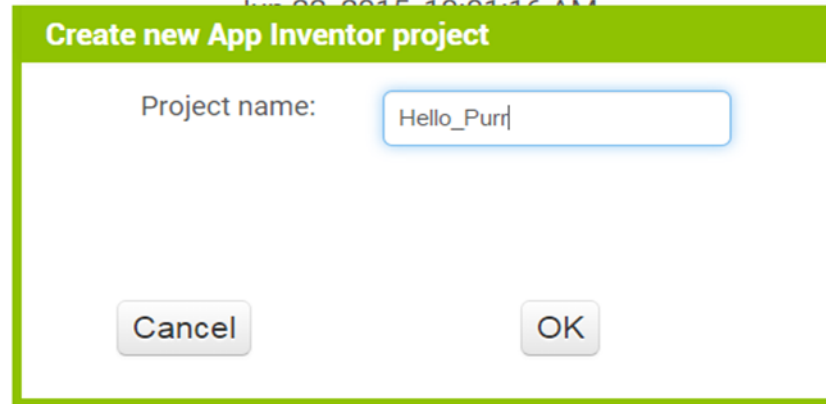
- The first screen gives you permission to use the program for 30 days. You'll have to go through this screen once per month.
- The second screen is a standard terms of service. After getting through those screens,.....

It's Time to Make Apps!

- You'll see this:



- Select Start new project; type your project's name (no spaces allowed; use underlines instead).



Jun 22, 2015 10:01:16 AM

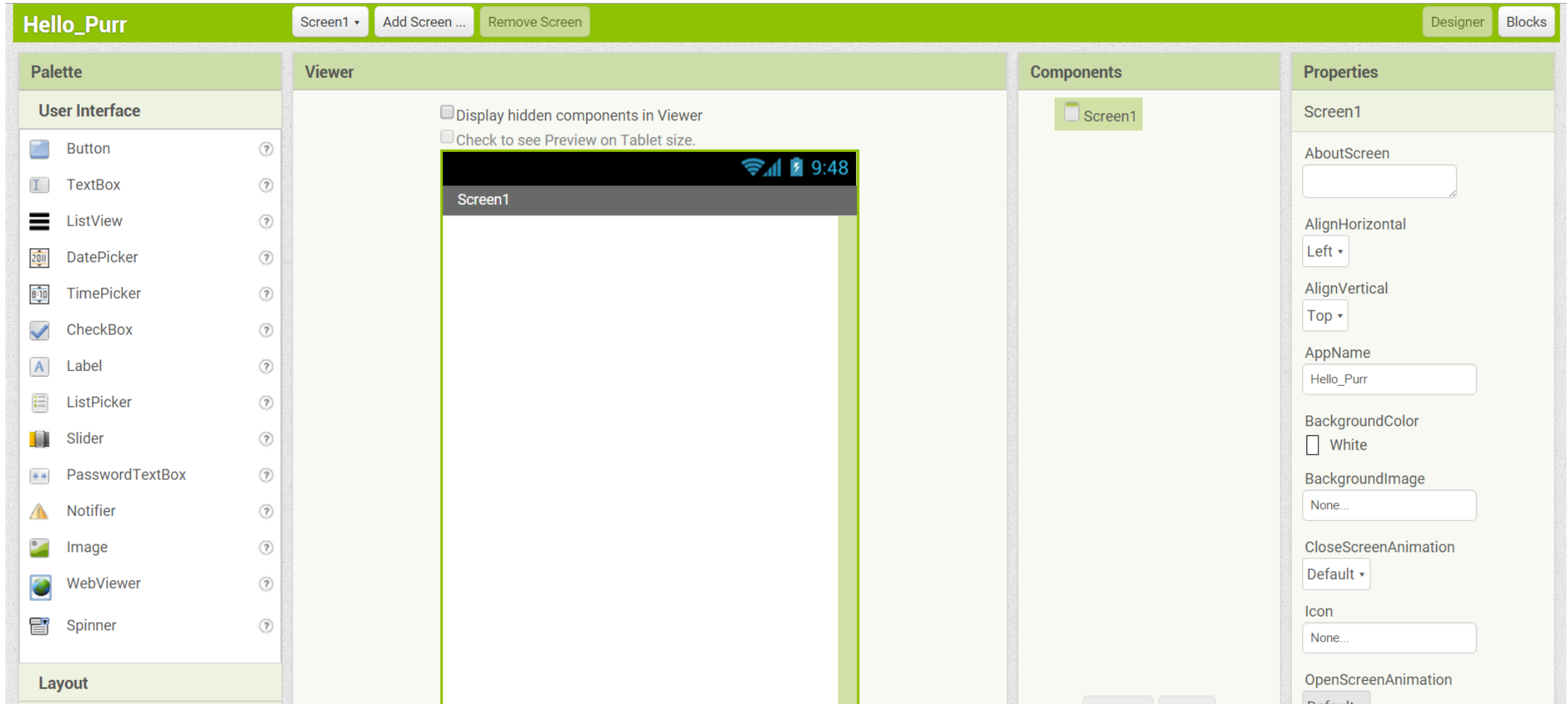
Create new App Inventor project

Project name: Hello_Purr

Cancel OK

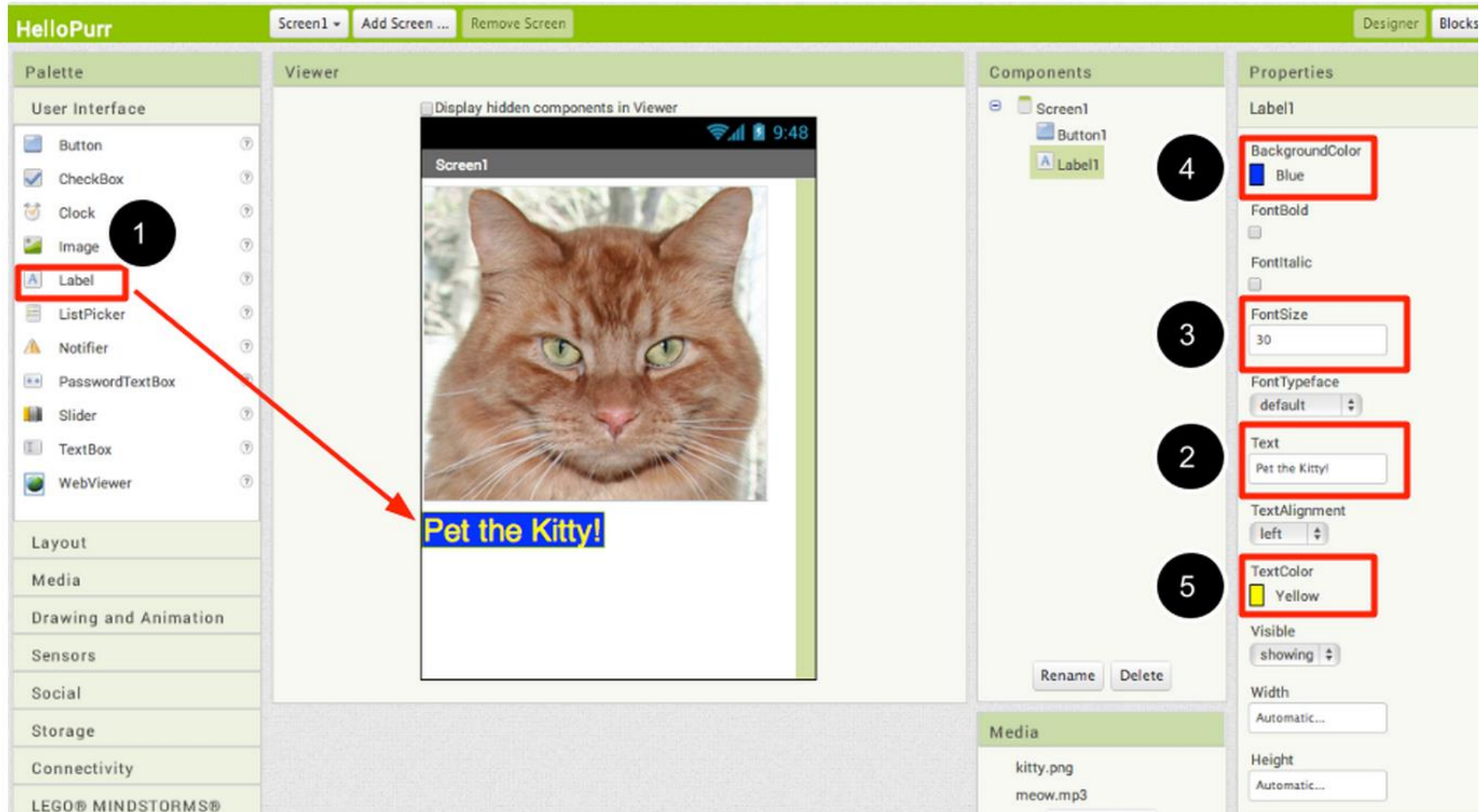
- Allowable project name: Hello_Purr Not allowed: Hello Purr
- Click OK.

This is what you'll see

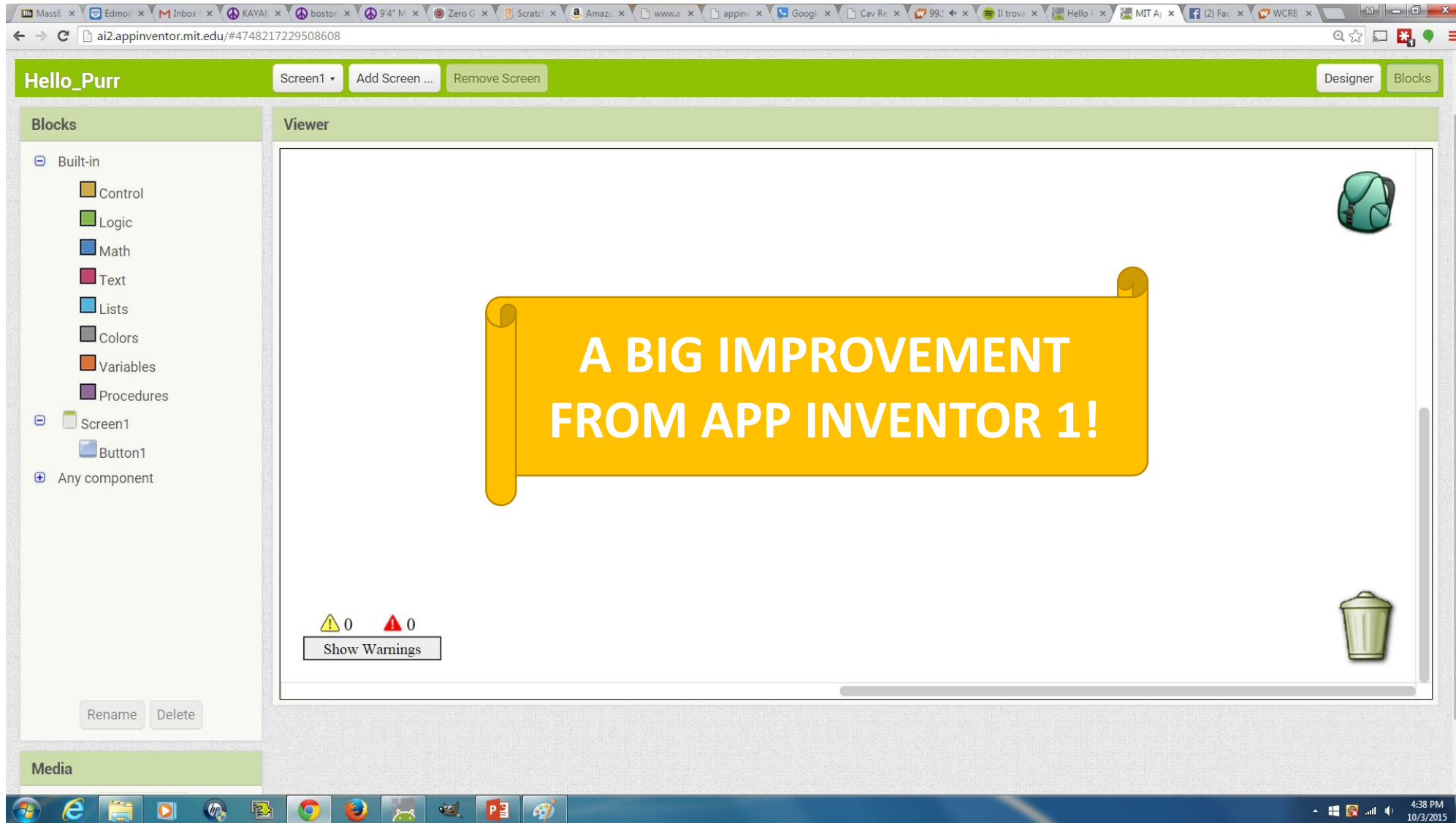


THIS IS THE DESIGNER SCREEN. It's where you build the app that users will see on the screen.

The App Inventor website has many easy-to-follow tutorials that will help get your students started.

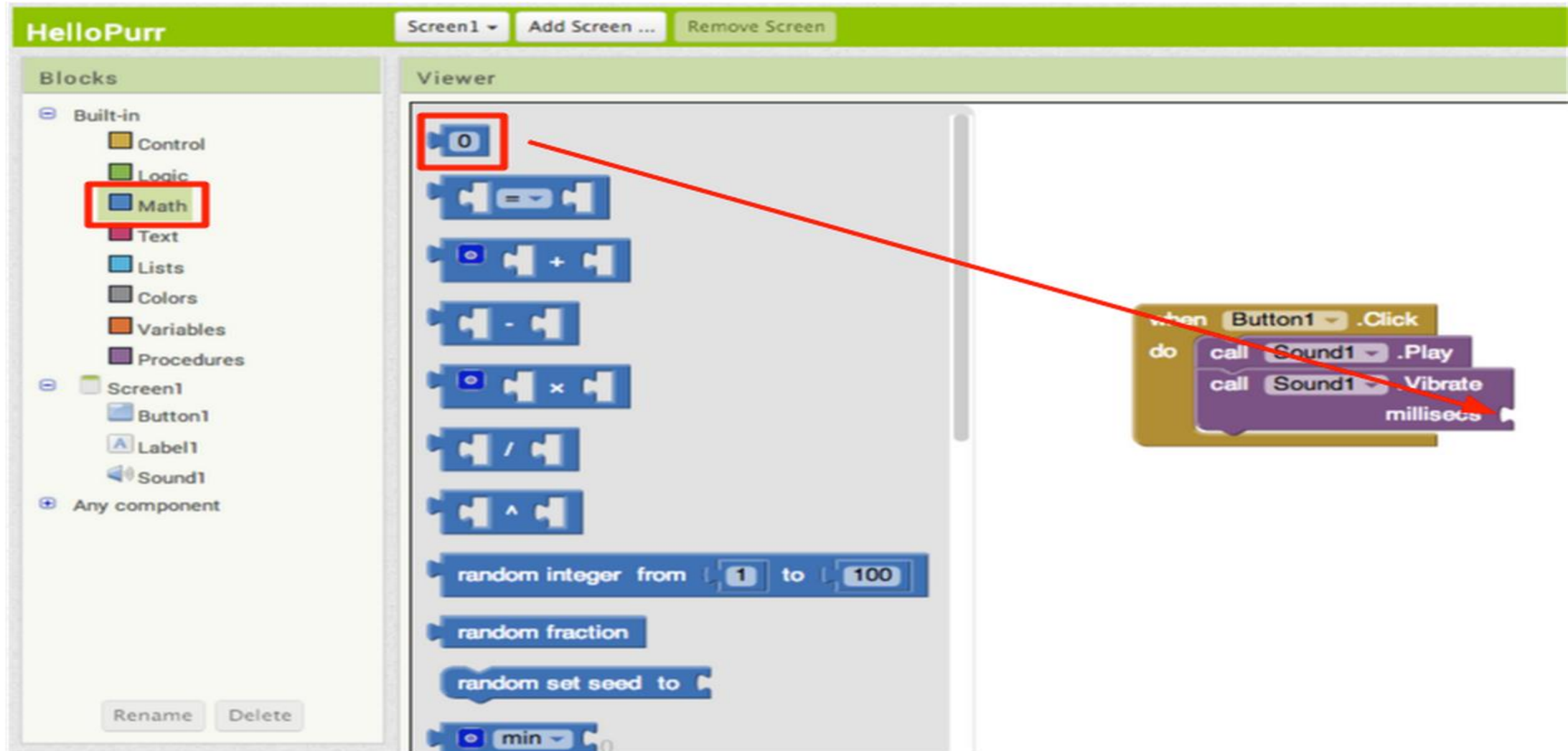


Once you've designed your app, you go here:



THE BLOCKS EDITOR

Helpful step-by-step instructions guide the students in building their first apps.



Once the app is designed and the blocks are in place, *how will they test it?*

- With the Emulator
- (an on-screen simulated smartphone).



Follow the Emulator Setup instructions for Max, Windows or Linux:

Important: If you are updating a previous installation of the App Inventor software, see [How to update the App Inventor Software](#). You can check whether your computer is running the latest version of the software by visiting the page [App Inventor 2 Connection Test](#).

Step 1. Install the App Inventor Setup Software

- [Instructions for Mac OS X](#)
 - [Instructions for Windows](#)
 - [Instructions for GNU/Linux](#)
-

Step 2. Launch aiStarter (Windows & GNU/Linux only)

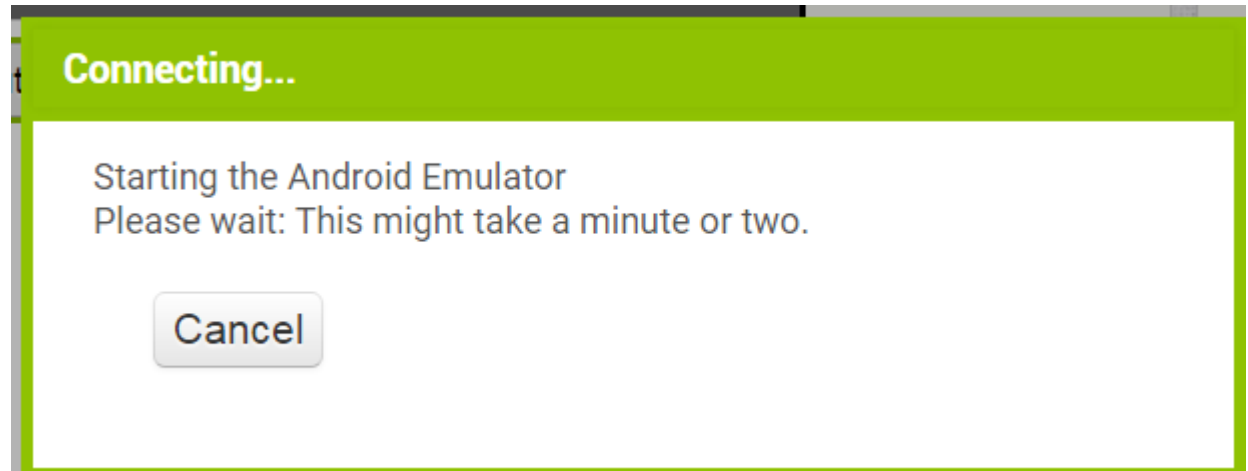
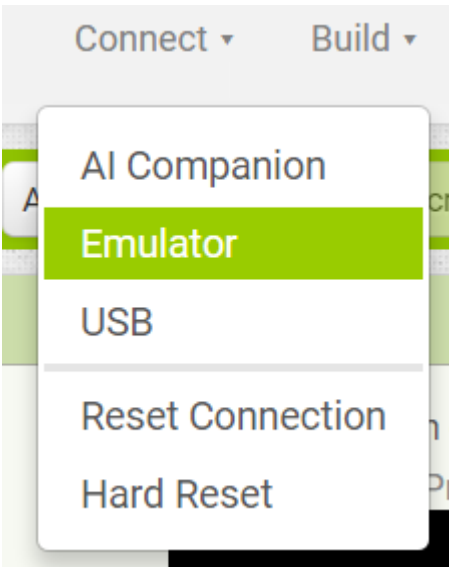
Using the emulator or the USB cable requires the use of a program named *aiStarter*. This program is the helper that permits the browser to communicate with the emulator or USB cable. The aiStarter program was installed when you installed the App Inventor Setup package. You do not need aiStarter if you are using only the wireless companion.

- On a Mac, aiStarter will start automatically when you log in to your account and it will run invisibly in the background.
- On Windows, there will be shortcuts to aiStarter from your Desktop, from the Start menu, from All Programs and from Startup Folder. If you want to use the emulator with App Inventor, you will need to manually launch aiStarter on your computer when you log in. You can start aiStarter this by clicking the icon on your desktop or using the entry in your start menu.

The Emulator

- You can **test** all of **your app's functionality** EXCEPT for components that require a phone or tablet (example: a camera or a motion sensor).
- You can do **live testing** (the emulator automatically updates in real-time as you build the app).

- To Connect your app to an Emulator, go to the Connect menu and choose the Emulator.



And you'll see this message as it loads.

The first time you use the Emulator,
you have to go through a few
steps to set it up, that take just
a few minutes, as follows.....

Companion Version Check

Your Companion App is out of date. Click "OK" to start the update.
Watch your emulator's screen because you will be asked to approve the update.

OK

Not Now

- You may see this (not a bad thing); it's a quick update of the emulator that is necessary occasionally.
- Click OK. Your Emulator will show this:

Software Update

The update is now being installed on your device. Watch your device (or emulator) screen and approve the software installation when prompted.

IMPORTANT: When the update finishes, choose "DONE" (don't click "open"). Then go to App Inventor in your web browser, click the "Connect" menu and choose "Reset Connection". Then reconnect the device.

Got It

3G 11:09 PM



MIT AI2 Companion



Replace application

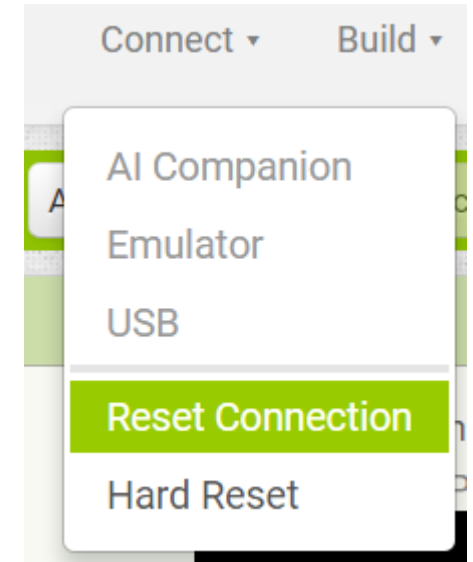
The application you are installing will replace another application.

All previous user data will be saved.

OK

Cancel

- Click on Install;



- then when it's done, click on Done.
- Reset your connection, under the Connect menu.

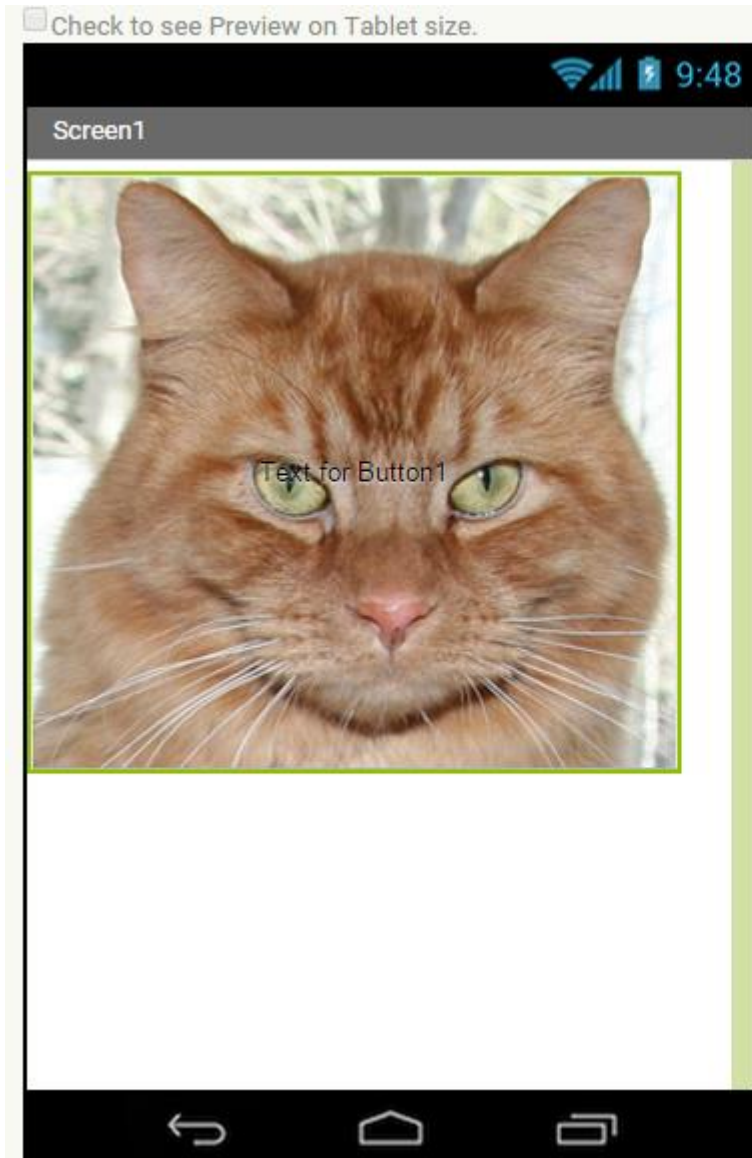
Then, Connect to Emulator again.

YOU ONLY HAVE TO DO THIS ONCE (usually)!

Now, you should see your app on the Emulator and you can continue to build it, and test it.

Ta Da!

Your Design



Your Emulator



Connecting to your phone or tablet

- The Emulator is fine for testing most apps, but it's extra rewarding to use the app on a device.
- You'll need to install the MIT AI Companion on your device (available at the Play Store, and on the Setup page in App Inventor).
- You'll need a QR Code reader to get it from the Setup page (see below).

Step 1: Download and install the MIT AI2 Companion App on your phone.

Open your device's QR code scanner and scan the QR code on the left below to download the Companion App from the Play Store. If you can't use the Play Store, use the QR code on the right to download the Companion App directly to your phone.

Play Store

Recommended: Automatic updates



Scan this QR code (or [click this link](#))
to get the app from the Play Store

APK File

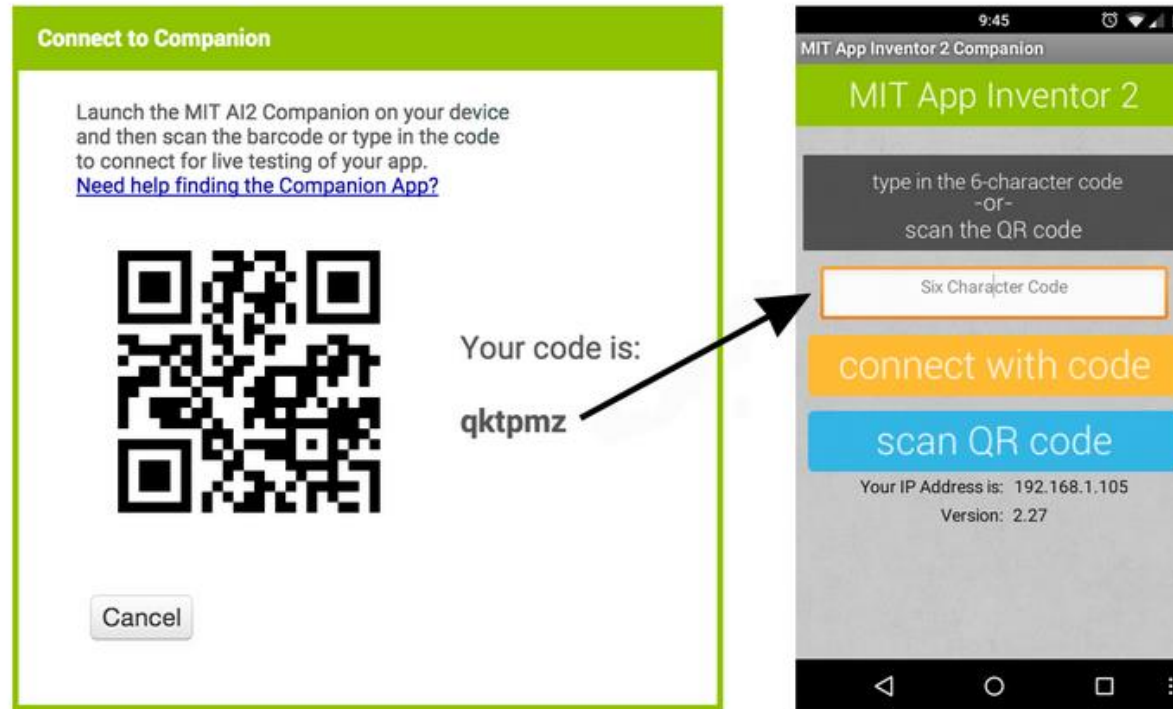
Manual updates required



Scan this QR code (or [click this link](#))
to download the app directly

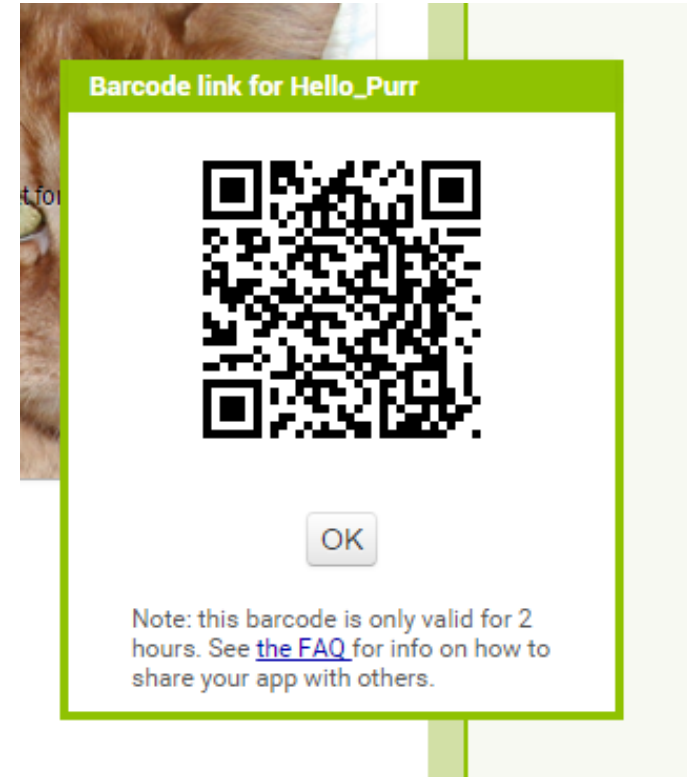
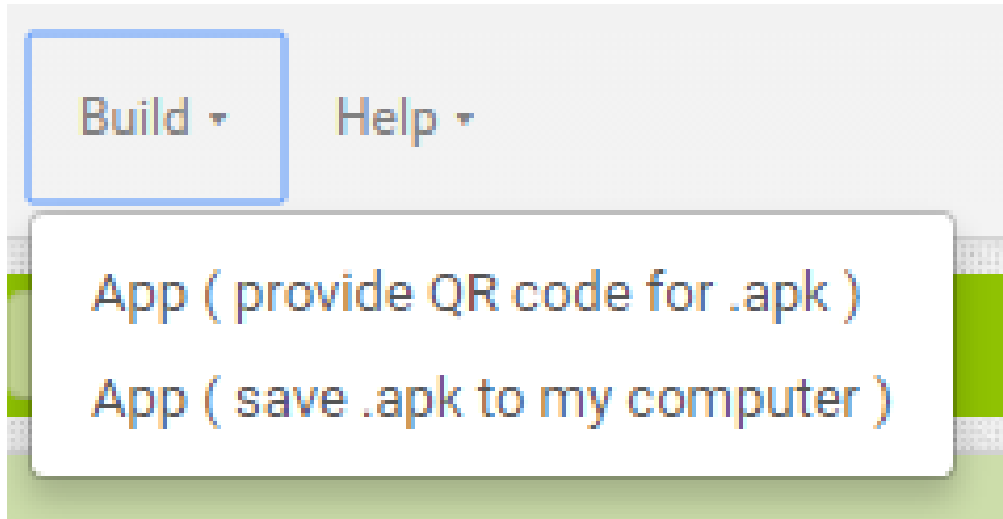
Launch the MIT AI Companion on your device (on right)
on the left is the QR code generated for your app (go to Connect, AI
Companion to generate the code). Press scan QR CODE

A dialog with a QR code will appear on your PC screen. On your device, launch the MIT App Companion app just as you would do any app. Then click the "Scan QR code" button on the Companion, and scan the code in the App Inventor window:



Then, select connect with code; the app will appear on your device in seconds.

I'd like to install this app on my device. How do I do that?



THERE ARE TWO WAY (BOTH UNDER THE BUILD MENU): produce a QR code that you can scan onto your phone (if you have a QR code reader) OR save the file to your computer and send it to your device.

My App Inventor Unit

(all assignments (with a few exceptions) come from MIT's site
([hyperlinks below](#))


- [Hello Purr](#): click the button and the cat meows
- **Hello Bark** (mine: students create a similar app for dogs)
- [Paint Pot](#) (parts 1 & 2 & my add-ons: camera, additional colors, change canvas background): a drawing app
- [Mole Mash](#): a game that records the number of hits of a moving mole
- [Ladybug Chase](#): a game of survival (eat or be eaten!) that teaches concepts of animation; from appinventor.org
- [Ball Bounce](#): additional concepts of animation
- **Create Your Own App** (mine: students pitch their idea to me for approval; then, design it and create blocks; shared with the class)

App Inventor is now in **Brazilian Portuguese!**

Google™ Custom Search




Tutorials for App Inventor



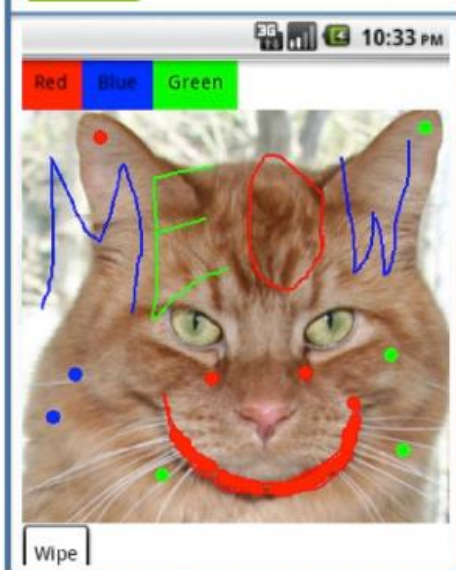
Beginner Tutorials

Video & Text

- Talk To Me**
Easy text-to-speech app
- Ball Bounce**
Starter for a game app
- Digital Doodle**
Finger drawing app



PaintPot Tutorial



Mole Mash Tutorial



appinventor.org
app building for everyone.

Tutorials • Online Book
Course-in-a-box

App Inventor

Create Your Own
Android Apps

David Wolber, Hal Abelson,
Ellen Spertus & Liz Looney



There are many more tutorials available below. Scroll down to browse the list, or check the appropriate boxes and click "Filter":

Where can you get help if you have questions, or something doesn't work, or you'd like to learn more?

Here are some resources:

- MIT App Inventor website
- AppInventor.org: a website designed by teachers for teachers
- MIT App Inventor Forum: a discussion group you can join
- Google your question (there's usually others who've experienced the same thing).
- Ask me: menglander@naschools.net

I hope you enjoyed this workshop. Good luck!