江西理工大学
Jiangxi University of Science and Technology
信息工程学院
School of information engineering

Mobile application development

Lecture 018:

APP Inventor _Example

Review the example and introduce some tips and tricks

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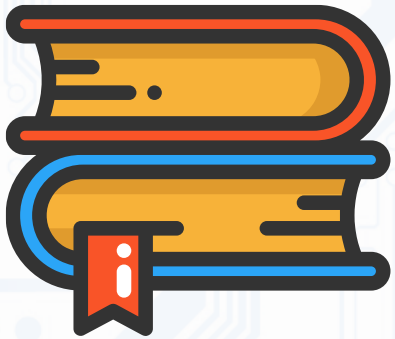

MOBILE APPLICATION DEVELOPMENT

LECTURE 018: **APP Inventor _Example**

Review tips and tricks

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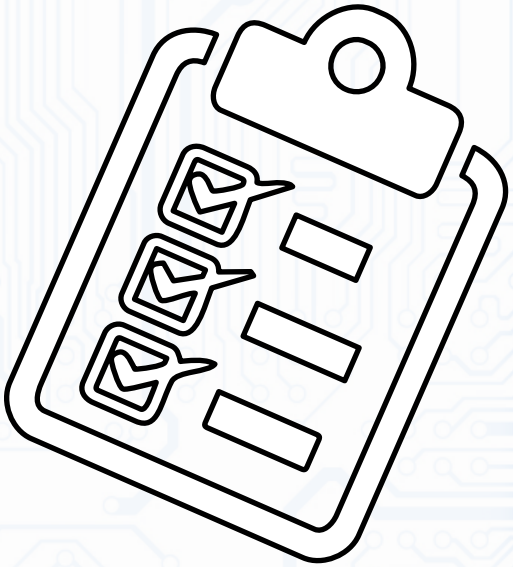
App Inventor

Agenda



- **App Inventor Tips & Tricks**
- **Simple tips to have a clean front**
- **05 example+2 (3 example need your correction)**

Find the problem

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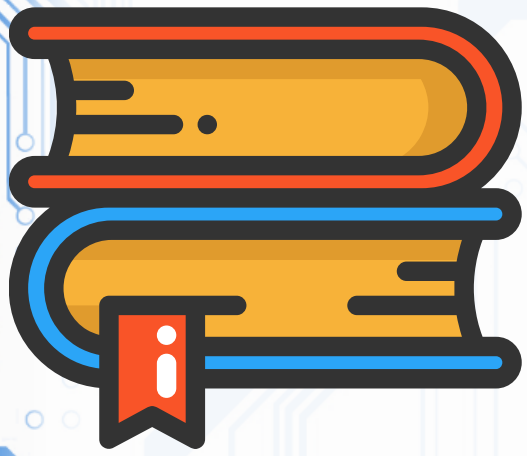

MOBILE APPLICATION DEVELOPMENT

App Inventor Tips & Tricks

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App Inventor

App Inventor Tips & Tricks

- **Making comments**
  - Add a note to blocks in your code to let you and others know what you were doing.
  - Comments can be added by right clicking on a block and selecting the Add a Comment option.
  - Your comment will now be saved and can be accessed by clicking on the question mark at the top right of the block.

App Inventor Tips & Tricks

- **Condensing blocks**
  - Click a button on a group of blocks to condense them and allow you to have more space available on your screen.
  - Condensing can be done by right clicking and selecting the Collapse Blocks option.

App Inventor Tips & Tricks

- **Type blocking Know the name of the block you need?**
  - –Click on the screen and start typing it's name in. This should cause a list of blocks with the matching titles to the typed word to appear.
  - –Fast deletion Instead of dragging your block or blocks to the trashcan in the lower left corner, just select them by clicking your mouse and hit the delete key.
  - –Copy-pasting If there are certain blocks you will need again, just copy and paste the blocks.

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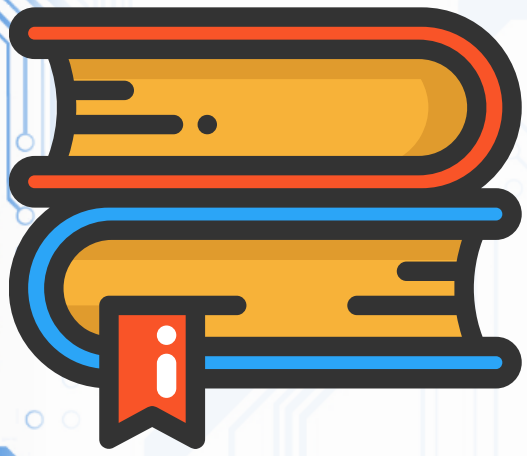

MOBILE APPLICATION DEVELOPMENT

Simple tips to have a clean front

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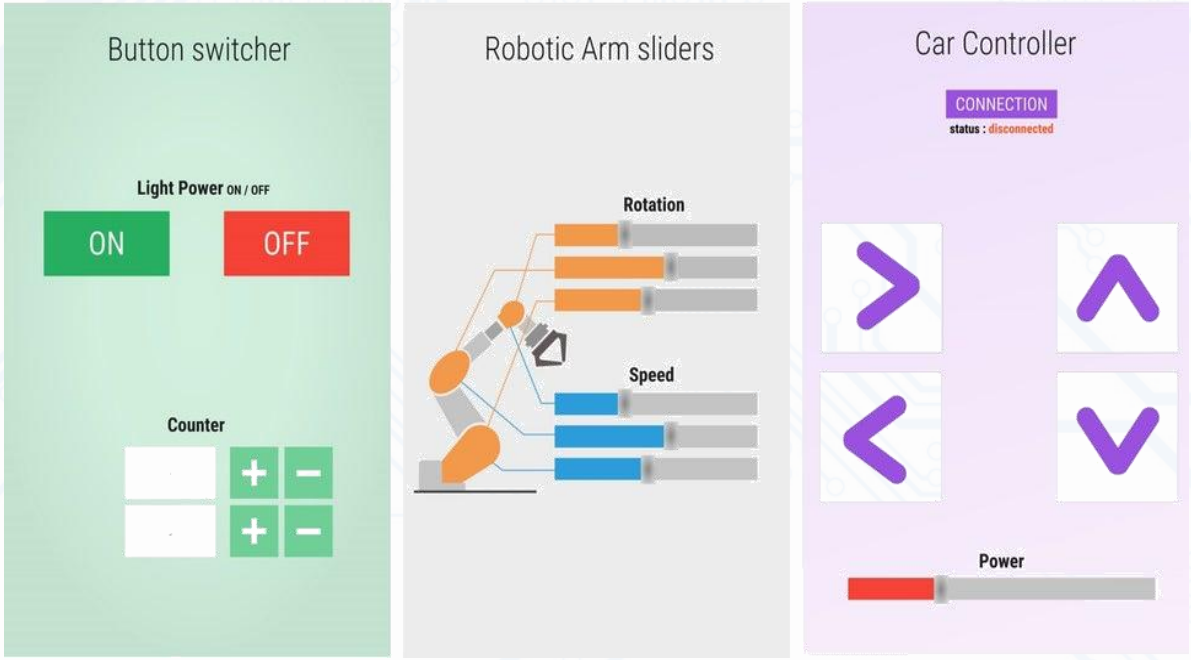
App Inventor

APP INVENTOR 2 Clean Front Tips

We're going to see how we can make your App on AI2 look nice

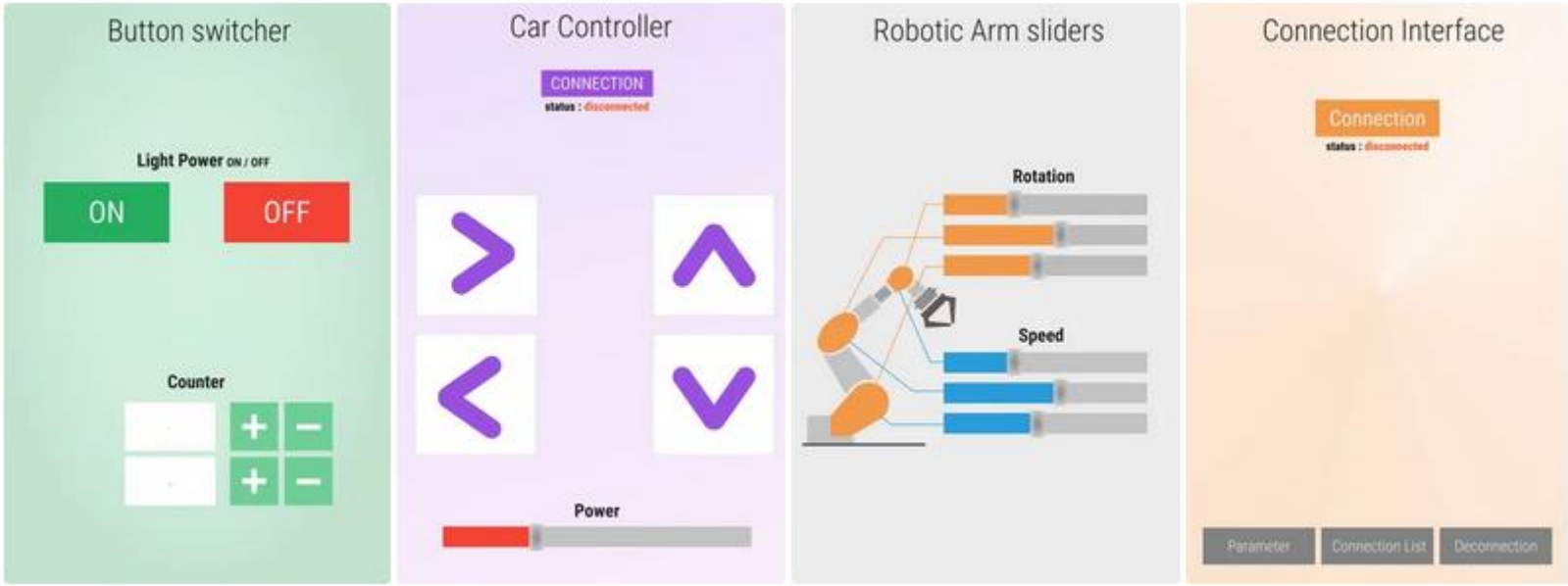
MIT APP INVENTOR

Simple Tips for a Clean front



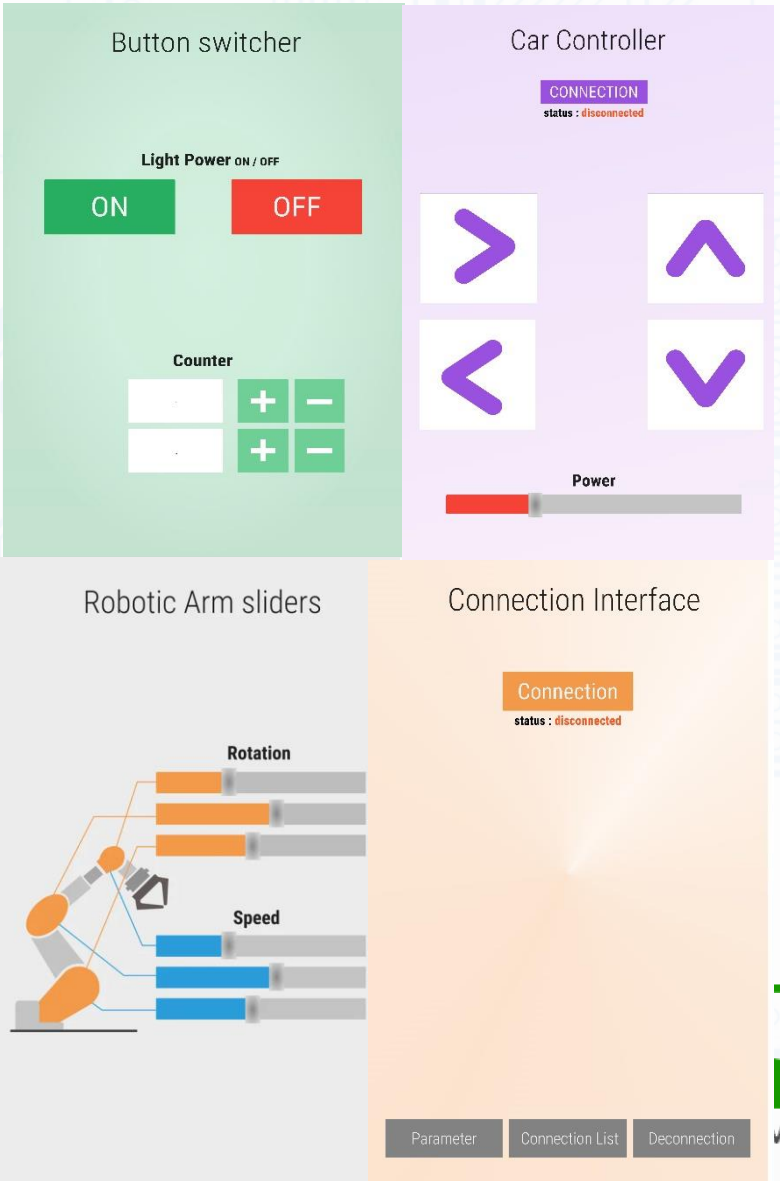
Step 1: Introduction

- MIT AI2 is a free, simple and amazing smartphone app development, which is perfect for every DIY Arduino or electronic device. But his simplicity also make him pretty **limited**, especially when you are trying to make your app look esthetic.



Step 1: Introduction

- The purpose of this Instruct able is to give you some tips to create a **cool front** for your future app, which will look **simple and elegant**, as every front should be.
- We're going to see the **basics** to create an App which is going to look like the **4 Example** showed.



Step 2: The Background

I've made the further creation on **Figma**, a vectorial free software, like an advanced paint, that allows you to create easily shapes and colors: It's very intuitive, i recommand it : www.figma.com !
You don't need to use Figma for your front, but i like to make the design before creating the application itself.

As you can see on the picture, the background needs to be very soft, since we are going to put some buttons, images, etc... on it...
I recommand a **30%** transparency on the color that you use, and a background with only **1 color**.

Step 3: The Colors

The Colors

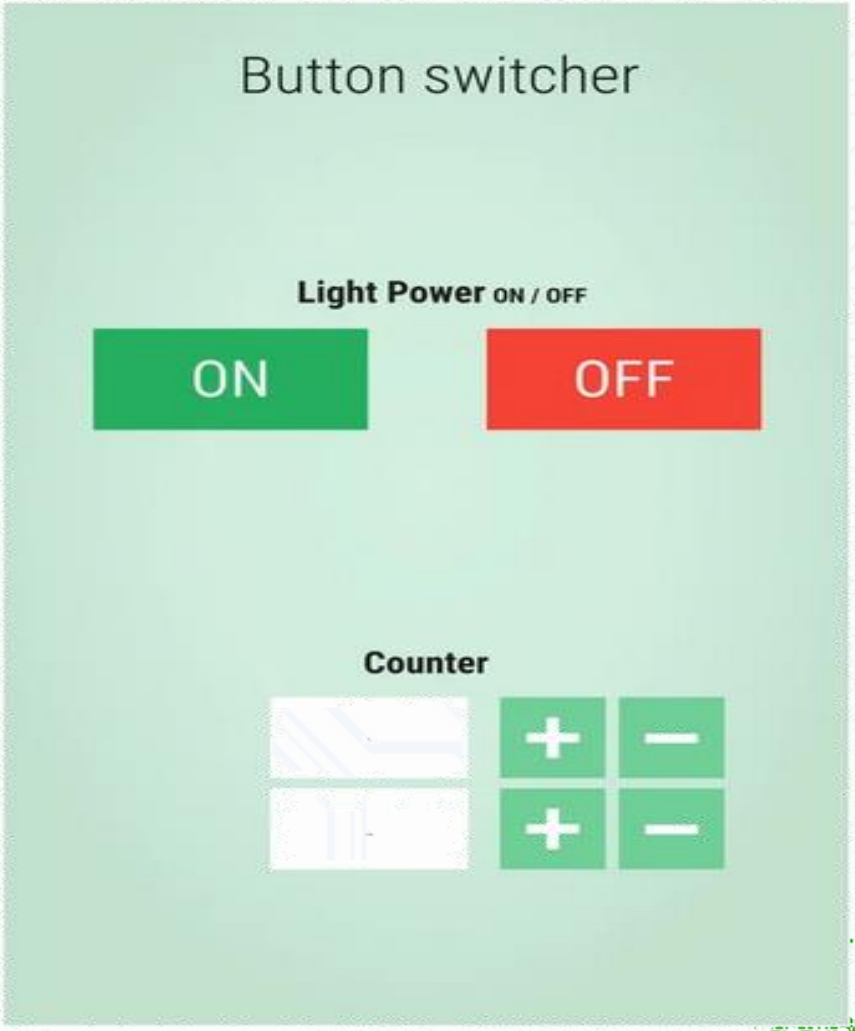
> Background
  Soft Colors
  Unshaped background

> Title, Subtitle
  No Background, Shade of black
  Play with the size and **attribute**

> Button
  Colored Shape
  Black or white Text

> Slider
  1 Color 1 Black or white

In general
  Less is more ... Be subtle



Step 3: The Colors

The colors that you choose and their intensity are very important in an App.

The first advice that i give is to choose **3 color maximum** (+ black and white) : we're still trying to be soft :)
For the 4 example that i made, here are the advices that i've chosen (you can also see them on the picture, as a recap):

The Background : a **soft and light** background with no shape (30% transparency of the color). Remember this color to integrate your buttons !

The Title : **Thin** text in the **dark grey** color looks good! For the following subtitle and text, stay in black, but change the shade of black (grey when it's not a big information), and play with the size and attribute that you can (bold, italic).

The Button : A single color, in general your background color with (80-100% transparency), then black or white to finish it.

The Sliders : don't use 2 colors for them, only **one color on the left side**, and **the right side in a shade of black**.

Less is more !!!! Don't use too many colors, shape and size, Be subtle !

Step 4: Set the Right Parameter of the Screen

On Screen1 Page - PROPERTIES

1- Select a screen Orientation

2 - Disable '**Title Visible**'

3 - Disable '**ShowStatusBar**'

4 - Create your own Background sized 505x320

5 - **Sizing**
> **Fixed** : Fixed to 505x320
> **Responsive** : Adaptative to the size of the screen

6 - **Theme**
> **Device default** : Adapt for the android version

Step 4: Set the Right Parameter of the Screen

On the main screen of the App Inventor **Designer part**, you can select the main caracteristic of the screen.

On **Screen1** -> **Properties**, follow the following action to delete the extras frame from AI2 that doesn't really look good

1 - Orientation of the screen

Choose only one orientation because the application doesn't adapt very well when you turn it.

I chosed the **Portrait** orientation.

2 - Disable 'Title Visible' and 3- Disable 'ShowStatusBar'

I disable the title and the status bar, because it add some bar on the app, that are not very esthetic (in my opinion).

4 - Dimension

The dimension of the common app is **505x320** (height x width). Remember those dimension to create your background and pictures (at least have the same proportion) ! If you use Figma, you can create the right size of your app instantly.

5 - Sizing

If you choose **Fixed**, then the app will be 505x320 sized.
If you choose **Responsive**, then the app will fit your smartphone, but beware, you will have to adapt your pictures.

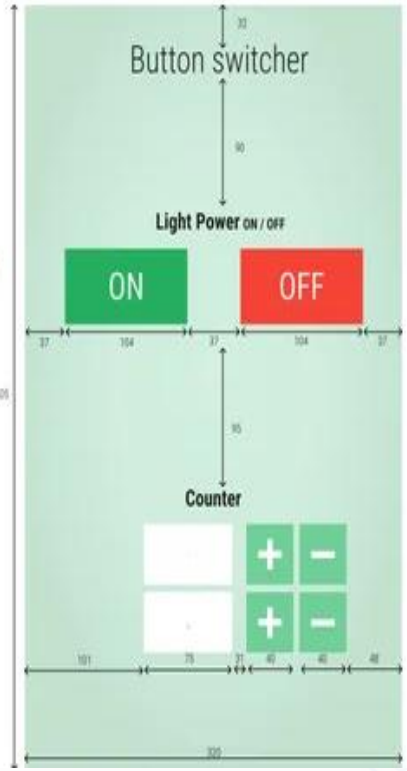
Step 5: How to Do It

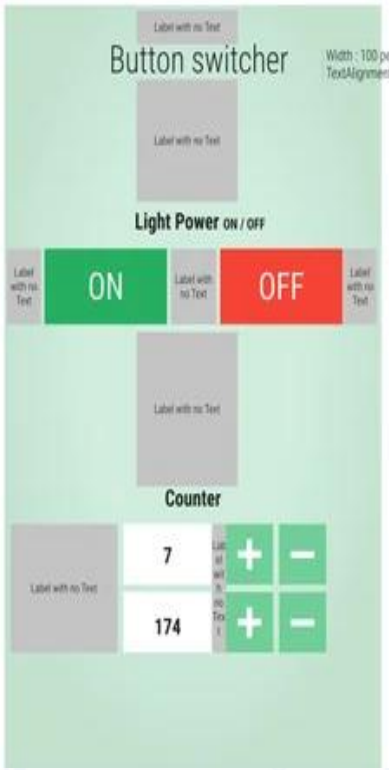
How to reproduce it

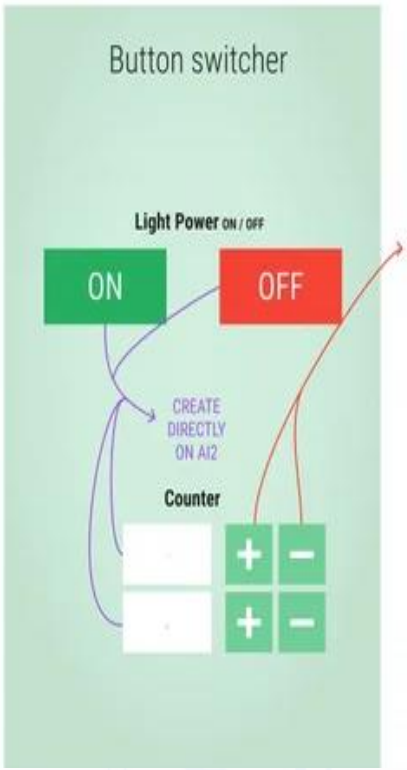
1 - Dimensions
Take the dimensions

2 - Fill the blank with invisible Labels
Just fill the height and width

3 - Integrate the pictures or button
When it's possible, it's better to make your button on the app rather than create it yourself.







To reproduce the first example, we're going to follow 3 steps (like the pictures) :

1 - Take the dimensions

- What's cool on figma is that you can see the size of your frames and object, so you can see what size will be your objects, and the blank ! The blank are very important on App Inventor because we are going to create them by putting invisible label!

To reproduce the first example, we're going to follow 3 steps (like the pictures) :

2 - Fill the blank will invisible Labels

- As you can see on the second picture, we reproduce the front that we want by placing label with the size appropriate. Then make it look invisible (unclick the button 'visible').
- Also use the Layout -> Arrangement to place your items

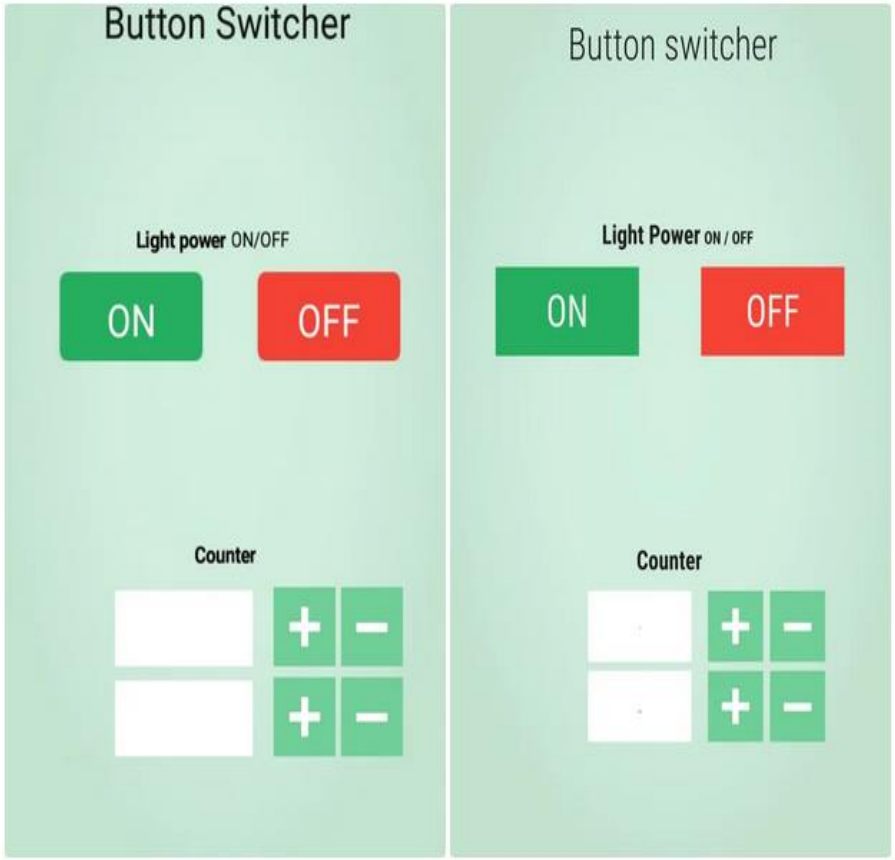
To reproduce the first example, we're going to follow 3 steps (like the pictures) :

3 - Try to create your Buttons on the software

- When possible, create your buttons on the AI2 website, they will be in high quality and the small animation 'on click' .
- When you cannot make your own buttons, you can create them on another software, and then import it as an image.

Step 6: The Result

On the left :
a screenshot from my smartphone on AI2.
On the right :
the draft made on Figma.



Reference

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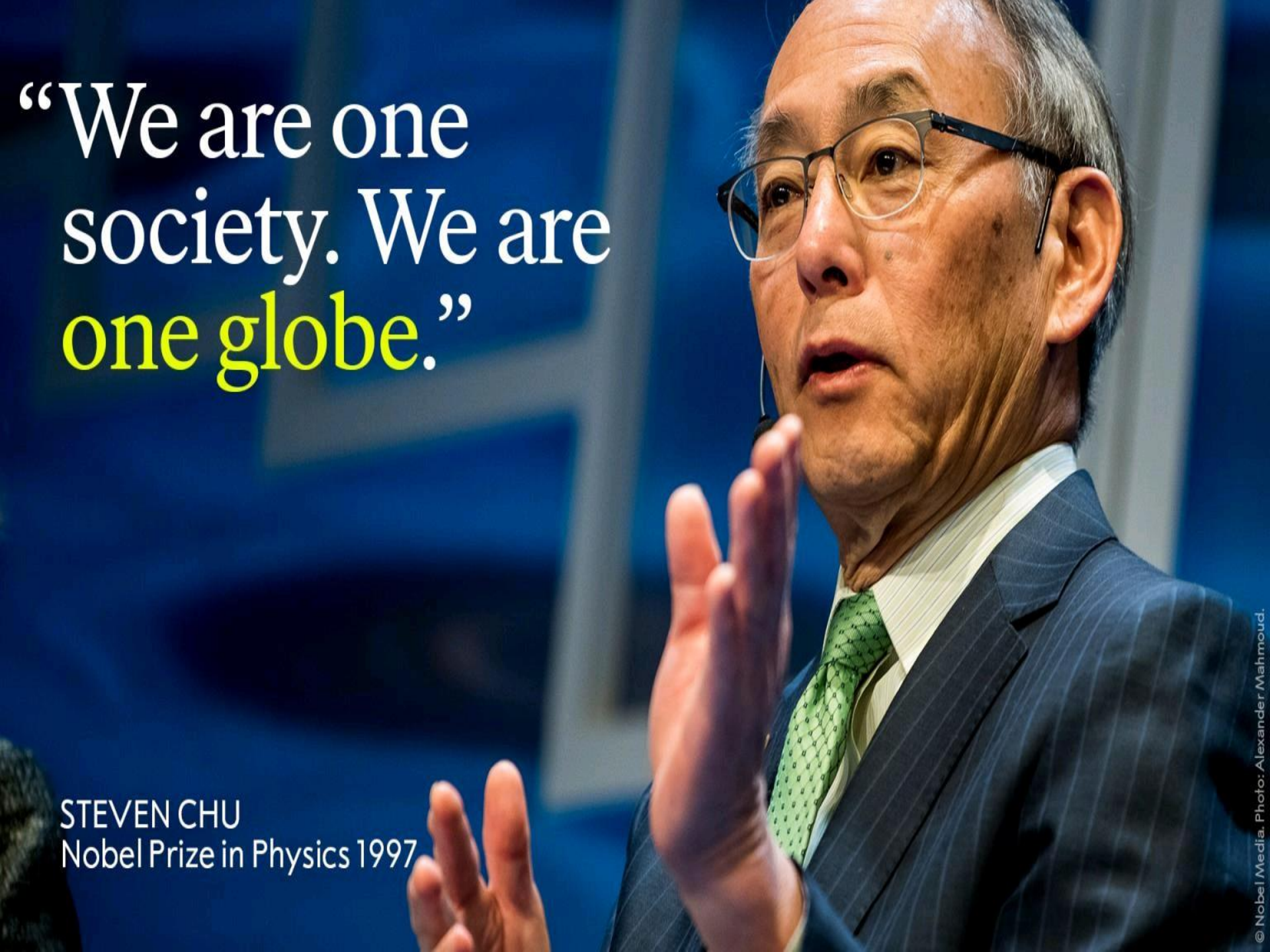
- http://ai2.appinventor.mit.edu/reference/blocks/lists.html#selectlistitem
- **https://appinventor.mit.edu/explore/content/alertme.html**
- **Teaching with AppInventor** http://appinventor.mit.edu/explore/teach.html
  AppInventor Tutorials:
  http://appinventor.mit.edu/explore/ai2/tutorials.html
- **Sounds** http://www.soundbible.com
- **App Inventor:** http://appinventor.googlelabs.com/
- **Appinventor.org:** http://www.appinventor.org/
- **Wolber, Abelson et al. text:** http://www.appinventor.org/text2011
- **Group:** http://groups.google.com/group/app-inventor-instructors
- **Wolber course:** http://appinventor.org/course-in-a-box
- **Morelli course:** http://turing.cs.trincoll.edu/~ram/cpsc110/


"We are one society. We are one globe."
STEVEN CHU
Nobel Prize in Physics 1997
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THANK YOU

"BE HUMBLE. BE HUNGRY. AND ALWAYS BE THE HARDEST WORKER IN THE ROOM."