

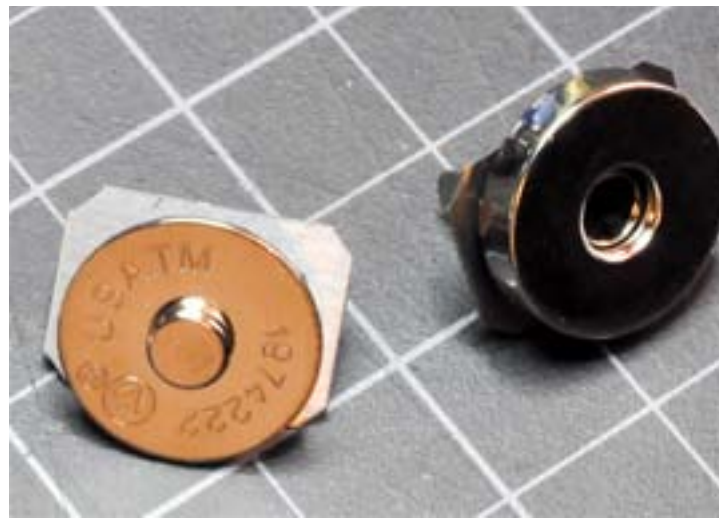
## Class 4: BUTTONS!

1. Where have you seen buttons?
2. Make our own push button
3. Work on our moving robot or action figure

# BUTTONS

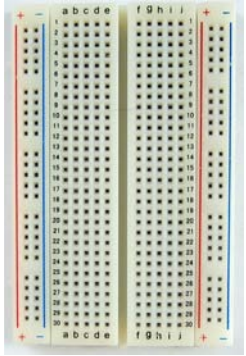


# SWITCHES



# What we will need to set up the breadboard for a blinking LED

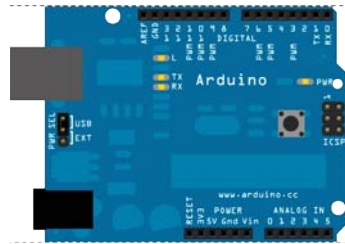
1. Breadboard



2. LED



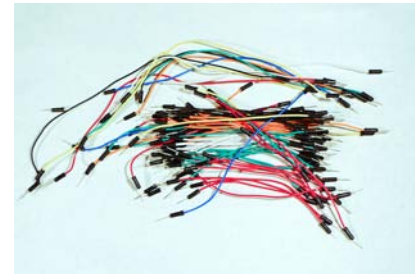
3. Arduino



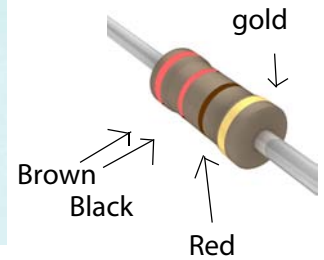
4. USB



5. wires



6. 1 resistor



7. 1 BUTTON





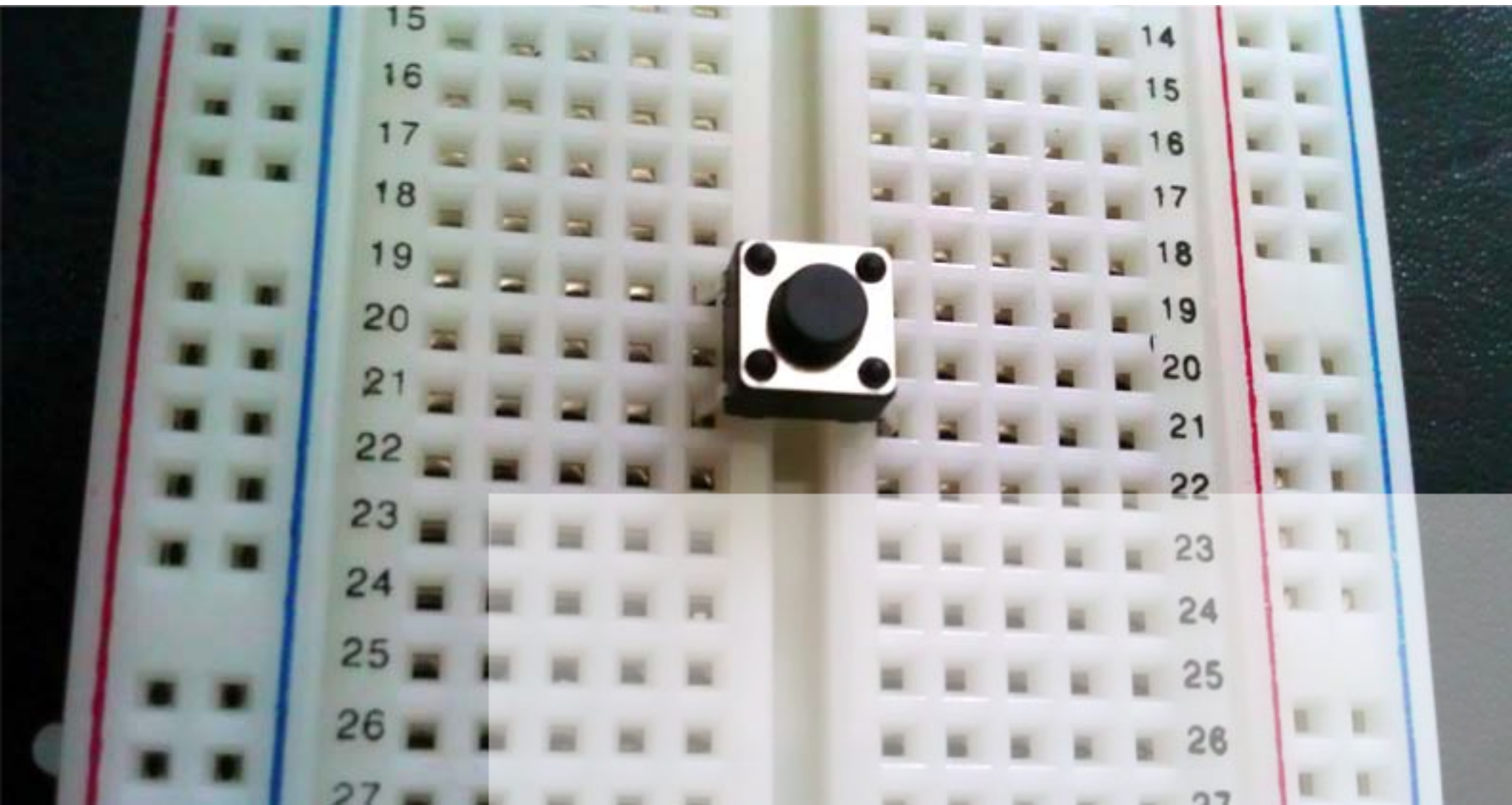
your button has four legs:

Put the button along the middle row.

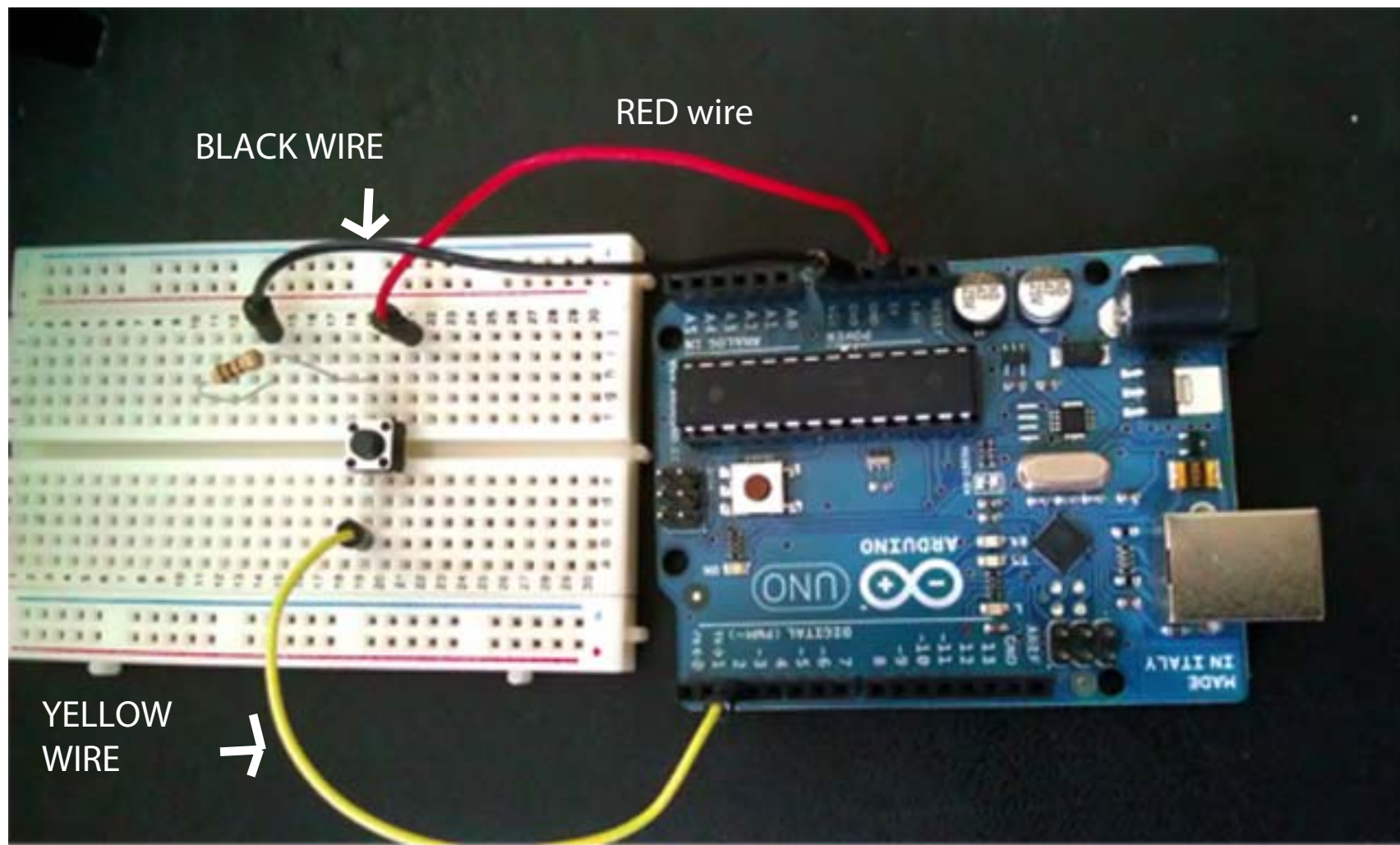
Two legs will go across ROW 19.

Two legs will go across ROW 21.

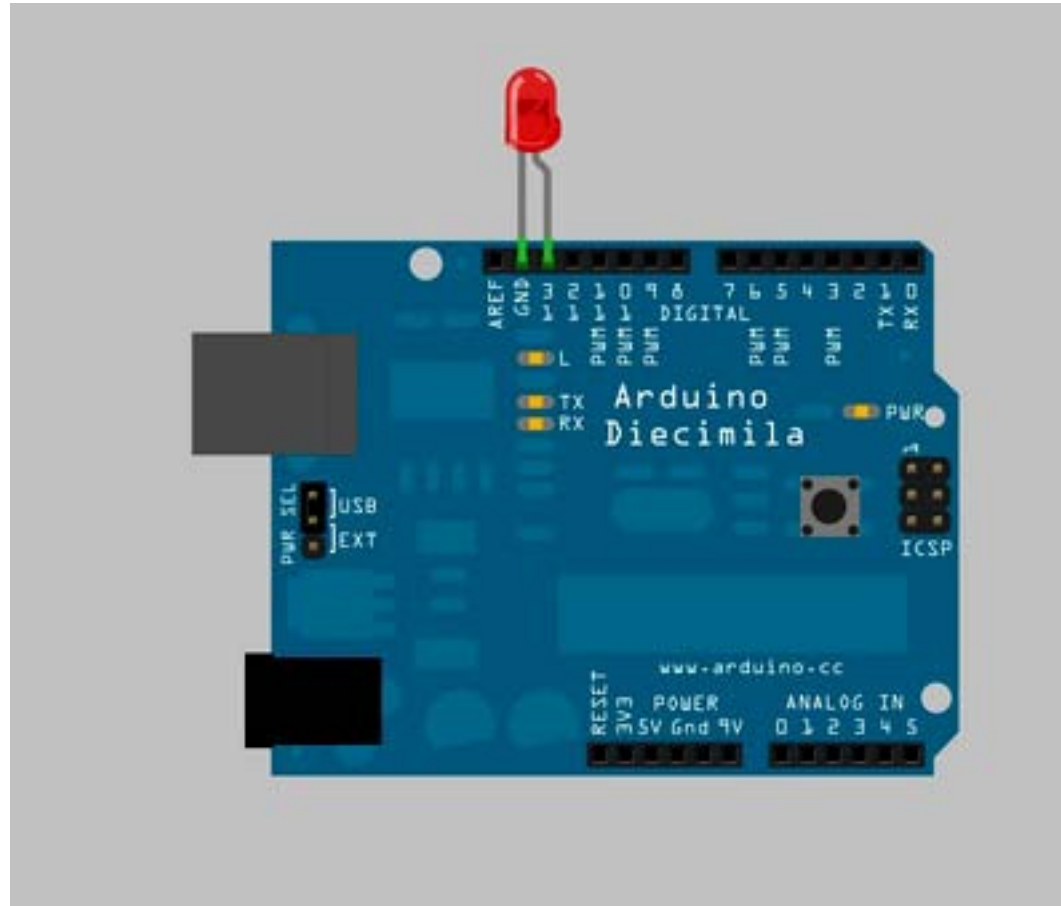
The legs will spread across the strip of the breadboard with no holes.



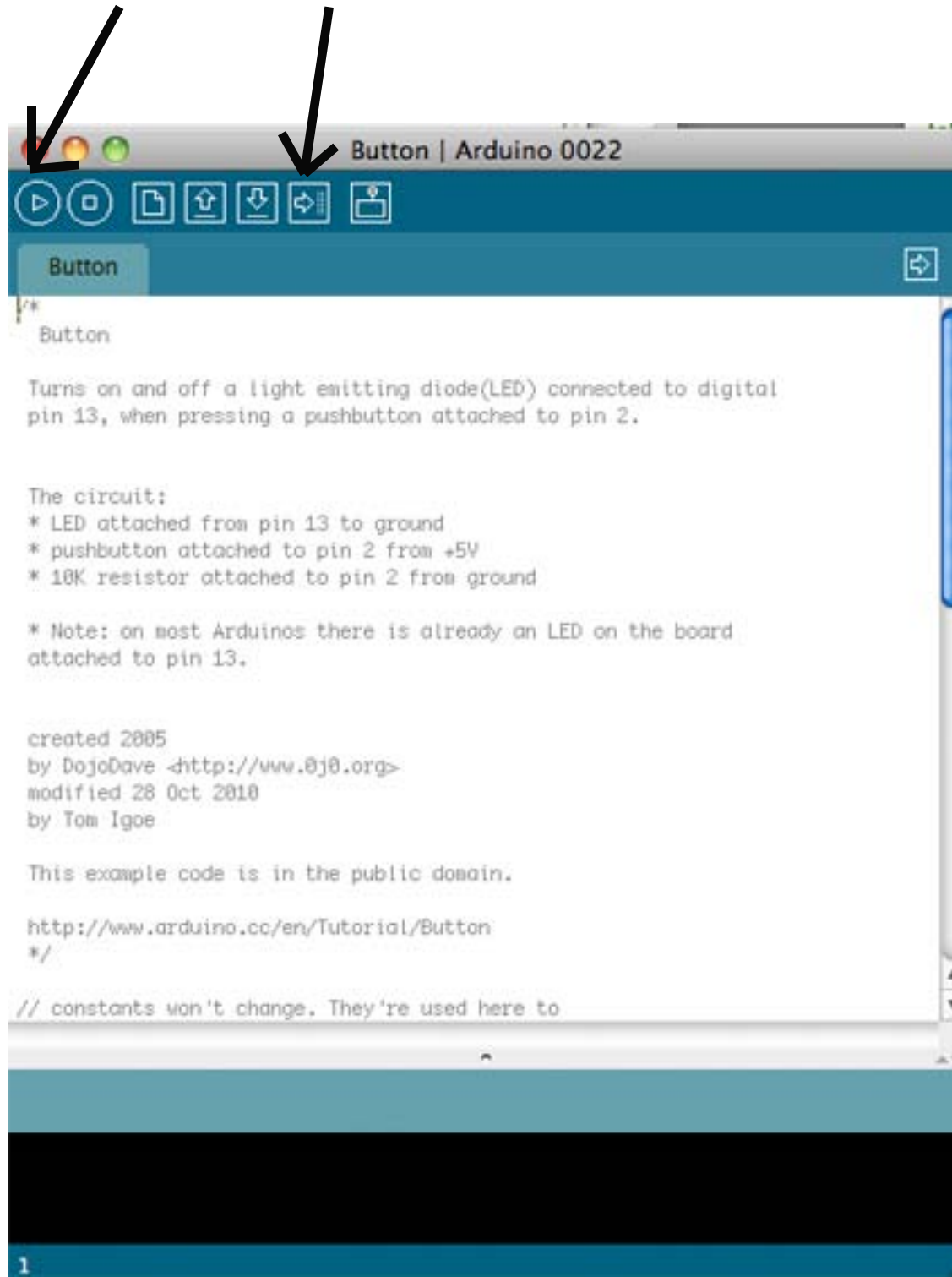
1. Put the RED wire going from the hole on ARDUINO that says 5V to a hole on the BREADBOARD on ROW 21.
2. Put the BLACK wire going from the hole on the ARDUINO that says GND to any hole on the BREADBOARD on ROW 14
3. Put a YELLOW wire going from the hole in ARDUINO that says 2 to a hole in the BREADBOARD that says 19
4. Put one side of the RESISTOR in a hole in the BREADBOARD on ROW 19 and the other side in a hole on ROW 14



Remember when we made the LED blink?  
Put the LONGER leg of the LED in ARDUINO hole 13.  
Put the SHORTER leg of the LED in ARDUINO hole GND.

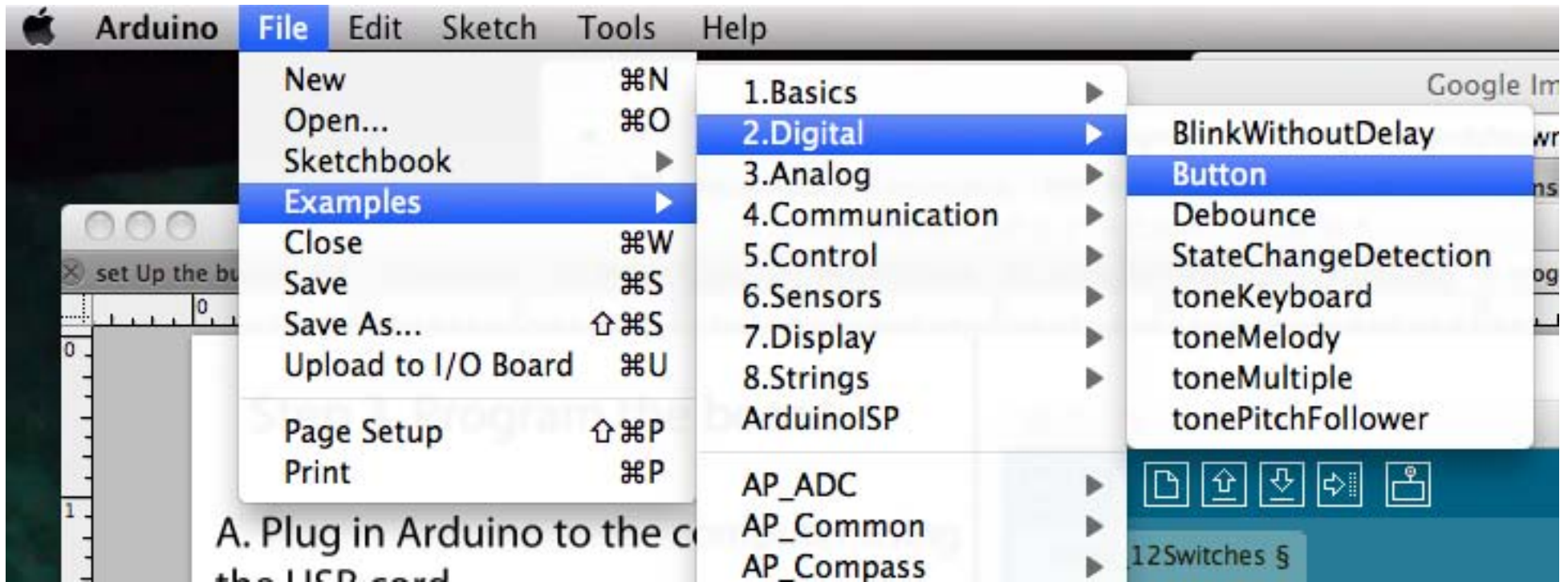


VERIFY and UPLOAD!





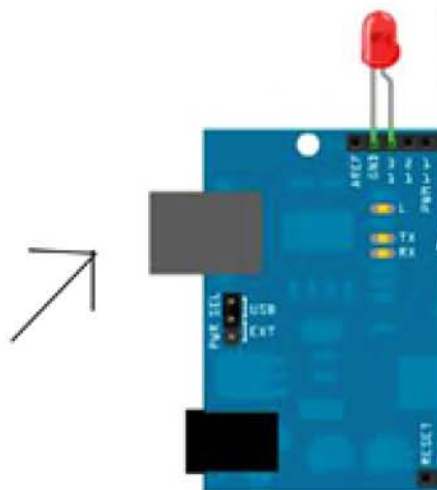
Once you have opened up ARDUINO on the computer, click on RILE---> EXAMPLES ---> DIGITAL ---> BUTTON



## Step 3. Program the board

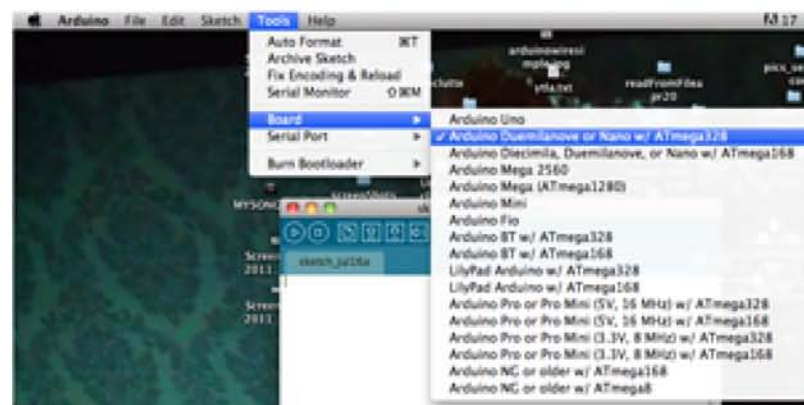
A. Plug in Arduino to the computer using the USB cord

USB cord goes here



## B. SELECT CHIP

In Arduino, select: Tools ----> Board ----> Arduino Duemilanove



## C. SELECT PORT

Select Tools ----> Serial Port ----> and click the TOP OPTION (it should be something "dev.tty.usbmodemfd131")



Push your button!

The LED should LIGHT UP

