

Arduino talkback over USB cable

Monday 4/18/22

Today we're going to have the Arduino "listen" on the USB cable to see if you enter anything and then take appropriate action depending upon what you entered.

Each person writes their own program today named "Arduino_talkback" and uses their own Arduino.

Insert an LED into 13 and GND (long leg on 13). Open the file I emailed you (or get it out of the Google Classroom). Open the starter code "talkback_start.ino", do a Save as, put your name in a comment at the top. Compile it and make sure it uploads.

Upload and test this code. To test, open the Serial Monitor and up at the top enter a 1 and hit Enter or click Send.



The LED on pin 13 should turn on.

Make the "else" block of code turn the light on and off with 200 millisecond delays for each state. Upload and test. Type a 1, type a 0, make sure it does different things (1 = on solid, 0 = blinking rapidly.)

To get 7/10 credit make the light do something obviously different when you type a 2. The idea is, if you type a 1, it turns the light on solidly. If you type a 2 it does something else, maybe it does the blink thing described above, it's up to you. If you type anything else the light turns off. **You will have an if, and else if, and then an else.** Each partner must do something different; don't just copy each other. So a 1 does one thing, a 2 does another thing, and anything else turns off the light.

To get 8/10 make it also do something obviously different when you type a 3.

Finally, to get full credit (10/10) make the light do a fourth thing when you type a 4. **Typing a 1, 2, 3 or a 4 does different things, typing anything else turns off the light.** Again, each partner must do something different, so don't just copy each other.

Leave the breadboard and the electronics out of today's program, we're just coding and each person uses their own Arduino.

You need to use an if ... else statement to get this to work. See the example below or look this up in the Arduino Reference (under the Help menu). Here is an example if ... else statement:

```
if (pinFiveInput < 500)
{
  // do Thing A
}
else if (pinFiveInput >= 1000)
{
  // do Thing B
}
else
{
  // do Thing C
}
```

You can have more than one "else if" part. In fact, your program WILL. Call me over to check off.