Intro to Arduino

and straw rockets!

January 13th, 2021

Agenda

01 **Install Arduino**

Install necessary software

02 **Go over box**

Go over box materials

03 **Play with Arduino**

Blink some lights!

04 **Straw Rockets**

Blo

01

Download Arduino

https://www.arduino.cc/en/software

Please pay attention!! **:]**

Downloads

Arduino IDE 1.8.13

The open-source Arduino Software (IDE) makes it easy to write code and upload it to the board. This software can be used with any Arduino board.

Refer to the **Getting Started** page for Installation instructions.

SOURCE CODE

Active development of the Arduino software is **hosted by GitHub**. See the instructions for **building the code**. Latest release source code archives are available **here**. The archives are PGP-signed so they can be verified using **this** gpg key.

DOWNLOAD OPTIONS

Windows Win 7 and newer
Windows ZIP file

Windows app Win 8.1 or 10 Get

Linux 32 bits
Linux 64 bits
Linux ARM 32 bits
Linux ARM 64 bits

Mac OS X 10.10 or newer

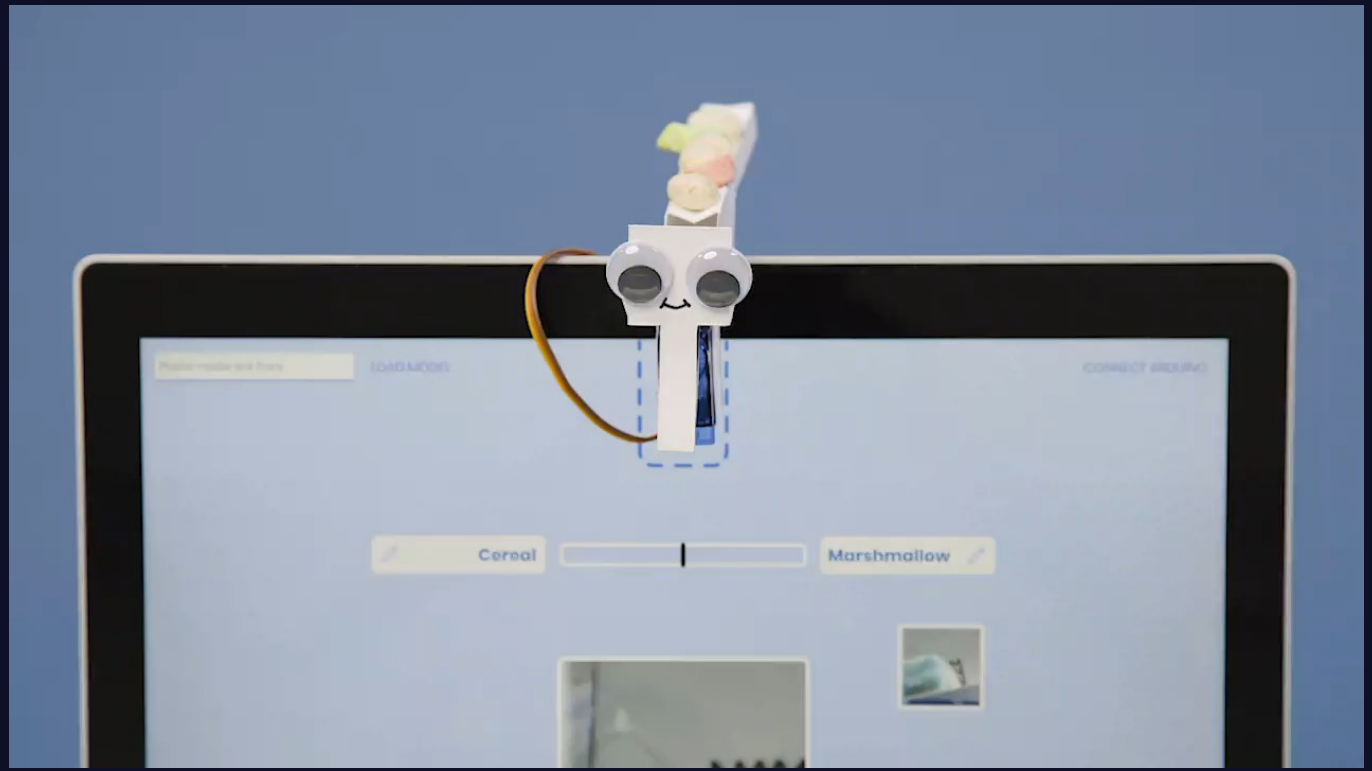
Release Notes
Checksums (sha512)

02

Talk about box stuff

Get your box

- Blue USB cable
- 3 wires
- Breadboard
- Arduino (the foil wrapped thing)
- Blue servo motor
- 3 assorted LEDs and 3 resistors
- Googly eyes
- Assorted candy

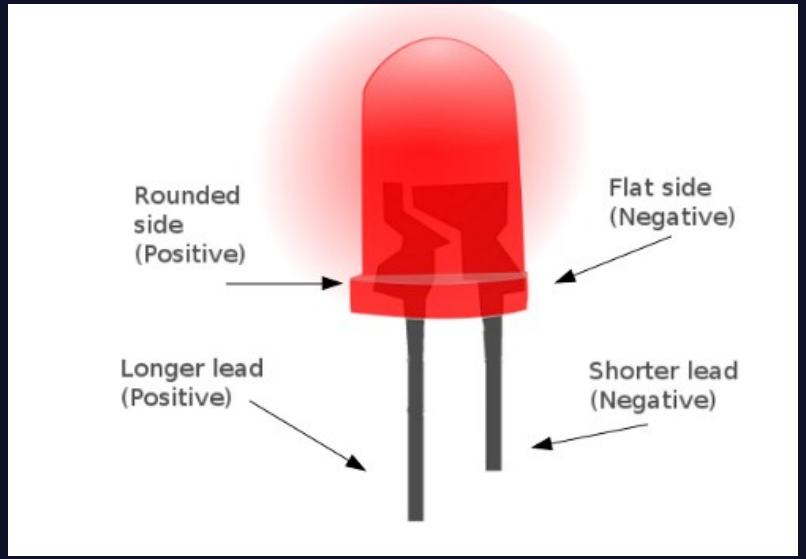

Cereal
Marshmallow

03

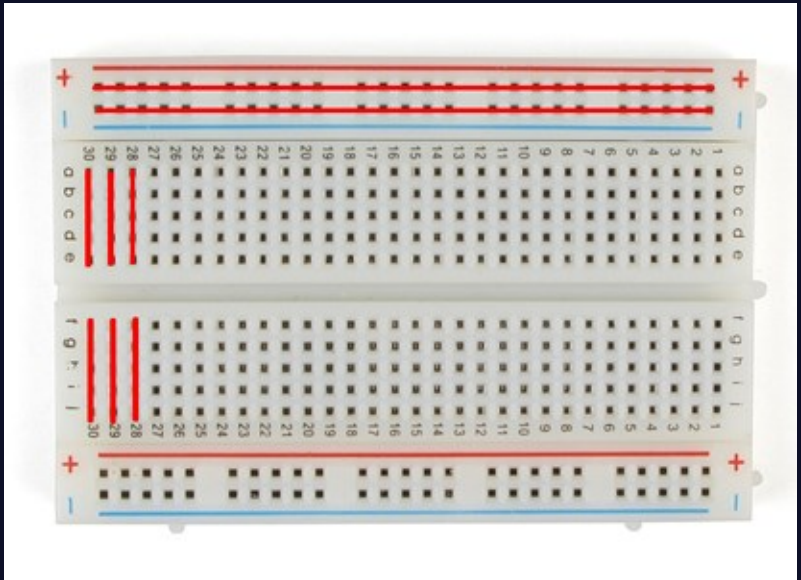
LED Blink

Please pay attention (again)!! :]

- LEDs have positive (LONG) and negative (SHORT) ends.
- Usually, a resistor is used so the LED doesn't get fried.



- You plug things into breadboards
- The two horizontal strips are connected.
- Vertical strips are connected.



04

Straw Rocket

Blast (blow) off!

Things to try

Different fin shapes

Bigger, smaller, pointier, lighter?

Change the rocket body

More/less paper, pointier nose?

BLOW HARDER

But spitting in your rocket will make it soggy