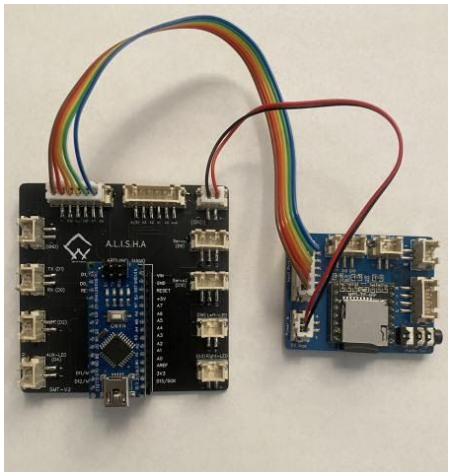
Upgrading A.L.I.S.H.A. Firmware for S.U.E. Guide

V1.0
By Crash Works 3D



The purpose of this guide is to provide directions for upgrading the sketch/firmware on your A.L.I.S.H.A. board Arduino so that you can utilize the sound features on the S.U.E. module.

***** New A.L.I.S.H.A. Button Feature *****

The new firmware also upgrades your current button / switch and provides new functions. If you "**Double Tap**" the Button (Switch) it will turn "**Off / On"** the LED eyes. If you "**Press & Hold**" the Button (Switch) it will adjust the brightness of the LED eyes.

S.U.E. is a **S**ound **U**nit **E**xpansion shield module designed to work with the A.L.I.S.H.A. Arduino shield module. S.U.E. is designed to enable sound effects for cosplay costumes and general fun. The S.U.E. shield has a DFPlayer Mini module installed on it which requires a specific SD card format and file naming convention. For more information please refer to the official DFPlayer Mini web site: https://wiki.dfrobot.com/DFPlayer_Mini_SKU_DFR0299

Operating voltage between 5v-6v (*not to exceed 6v due to MG90S servos.*)

Pre-requisites

- A.L.I.S.H.A. board (original SMT or TH) "Blue Board"
- S.U.E. module with JST connector cables (cables should be keyed for your specific board SMT or TH)
- Formatted micro SD card with Crasworks 3D sound effects loaded (see "Crash Works 3D - S.U.E. SD Card Formatting Instructions v1.0")
- The latest version of the Arduino IDE installed on your computer. Site download: https://www.arduino.cc/

Instructions

1. On your computer, download the latest version of the Iron_Man_Servo sketch from the Crash Works 3D Github site: https://github.com/crashworks3d/Iron_Man_Servo/.
2. Using the instructions on the Github site, install the dependent libraries.
3. Using the Arduino IDE open the “Iron_Man_Servo.ino” sketch file.
4. Using a USB cable, plug your Arduino Nano.
5. In the Arduino > Tools menu, ensure that the Board selected is “Arduino Nano” and the selected port matches the port you plugged your Arduino into.
6. Click on the upload button (circle with arrow pointing right).

The IDE will then compile and upload the latest sketch to your Arduino. That’s it!

Troubleshooting

If your sketch doesn’t compile or upload try the following steps:

1. Check your Arduino is properly connected to your computer via USB cable.
2. Check that you have the latest version of the Arduino IDE installed.
3. Check that you have selected the correct board and port.
4. Check that you have properly installed the dependent libraries.

If you have any problems or questions, please refer to:

Arduino How To site: https://www.arduino.cc/en/main/howto

Crash Works 3D Facebook group site:
https://www.facebook.com/groups/cosplayspecialeffectsprops

Contact us via email: stark3d@i3creations.com