A.L.I.S.H.A. Mini Binary File Upload Instructions

The purpose of this document is to provide instructions for uploading the program that runs the A.L.I.S.H.A. Mini board.

WARNING!!!

Failure to properly follow the instructions could result in "crashing" the board and making it inoperable!

Pre-requisites

1. Download and install Arduino IDE from here.
2. Download and install the ATtiny 85 Digispark board in the Arduino IDE following instructions from here
3. USB C cable compable of data transfer.
4. Download the hex file "Iron_Man_Servo_ATTiny85_88.ino.hex" from the Crash Works 3D github repository.

Hex File Upload Instructions

The "hex" file is a pre-compiled set of code designed and configured to run specifically on the ALISHA Mini board which has an ATtiny 85 micro-processor chip in it. The file can be uploaded directly from a computer to the ATtiny85 using a USB cable. More information can be found in the datasheet.

Mac OSX/Linux

1. On Mac OSX open the Terminal application and switch to the folder where you downloaded the "Iron_Man_Servo_ATTiny85_88.ino.hex" file to using the `cd` command.
2. Modify the following upload command with the full path to the Digistump uploader (should be in the Arduino15 packages folder).

   Command:

   `*[Path to Digistump uploader]*` `-cdigispark --timeout 60 -Uflash:w:Iron_Man_Servo_AM.hex:i`

   Example (Mac OSX):

   `/Users/TonyStank/Library/Arduino15/packages/digistump/tools/micronucleus/2.0a4/launcher -cdigispark --timeout 60 -Uflash:w:Iron_Man_Servo_AM.hex:i`
3. In the command line enter the command in step 3 in the terminal and press <enter>
4. When prompted, plug your ATtiny 85/88 into your USB cable.
5. The program should automatically detect the board and upload the binary file to the board.

A successful upload to the board should look something like this in the terminal:

```
Running Digispark Uploader...
Plug in device now... (will timeout in 60 seconds)
> Please plug in the device ...
> Press CTRL+C to terminate the program.
> Device is found!
connecting: 16% complete
connecting: 22% complete
```

```
connecting: 28% complete
connecting: 33% complete
> Device has firmware version 1.6
> Available space for user applications: 6012 bytes
> Suggested sleep time between sending pages: 8ms
> Whole page count: 94  page size: 64
> Erase function sleep duration: 752ms
parsing: 50% complete
> Erasing the memory ...
erasing: 55% complete
erasing: 60% complete
erasing: 65% complete
> Starting to upload ...
writing: 70% complete
writing: 75% complete
writing: 80% complete
> Starting the user app ...
running: 100% complete
>> Micronucleus done. Thank you!
```

Windows

[TODO]