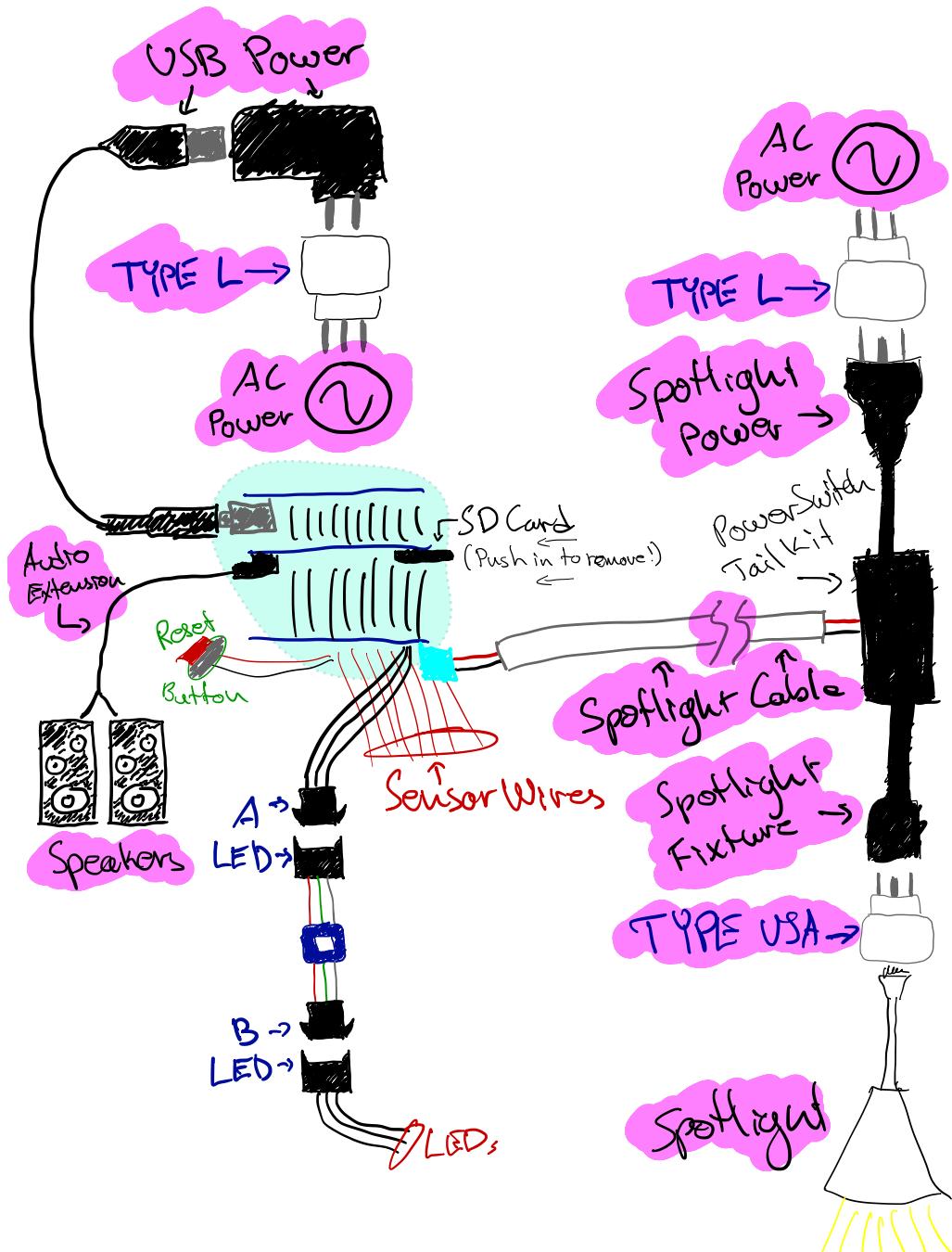


# Setup Directions

This document describes the setup (first pages) and testing (last page) of *Time Space Existence*.

There are four physically separated parts to the piece: the **main unit**, consisting of the model sitting on the pedestal; the **spotlight**, attached to the ceiling above the main unit; and the **speakers**, mounted in the room.

Following is a full system diagram. The Arduino unit is shaded teal. Items with a purple background need to be connected or installed.



# Main Unit Setup

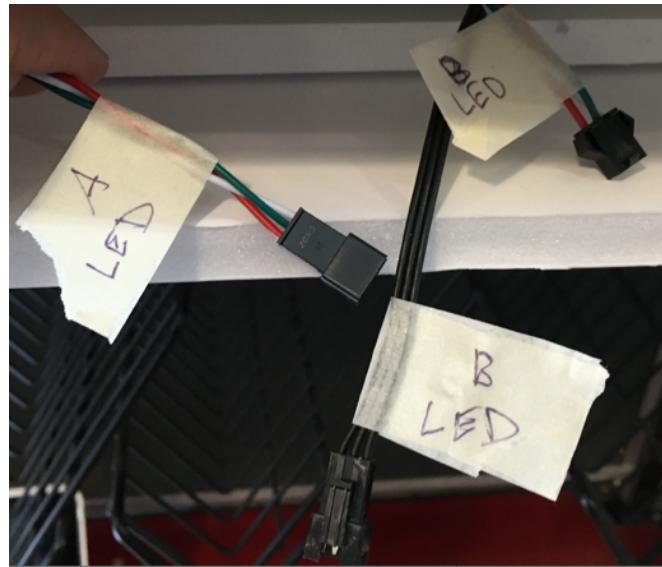
The main unit controls all the other pieces. There are five connectors in total: two for the **LEDs** (these shipped already connected, and no additional connecting should be necessary); one each for the **Spotlight Cable**, **Audio Extension** cable, and **USB Power** cable.

## LEDs

### Already connected — no action required.

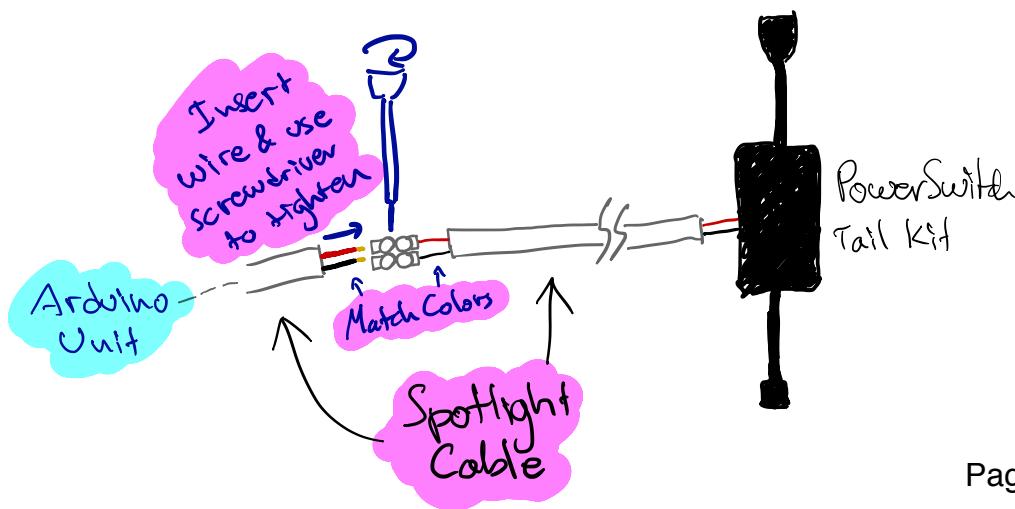
The LED cable connectors are labeled "A LED" and "B LED". The two connectors labeled "A LED" should be connected to each other, and the two connectors labeled "B LED" should be connected to each other. Only one orientation should be possible.

They look like this:



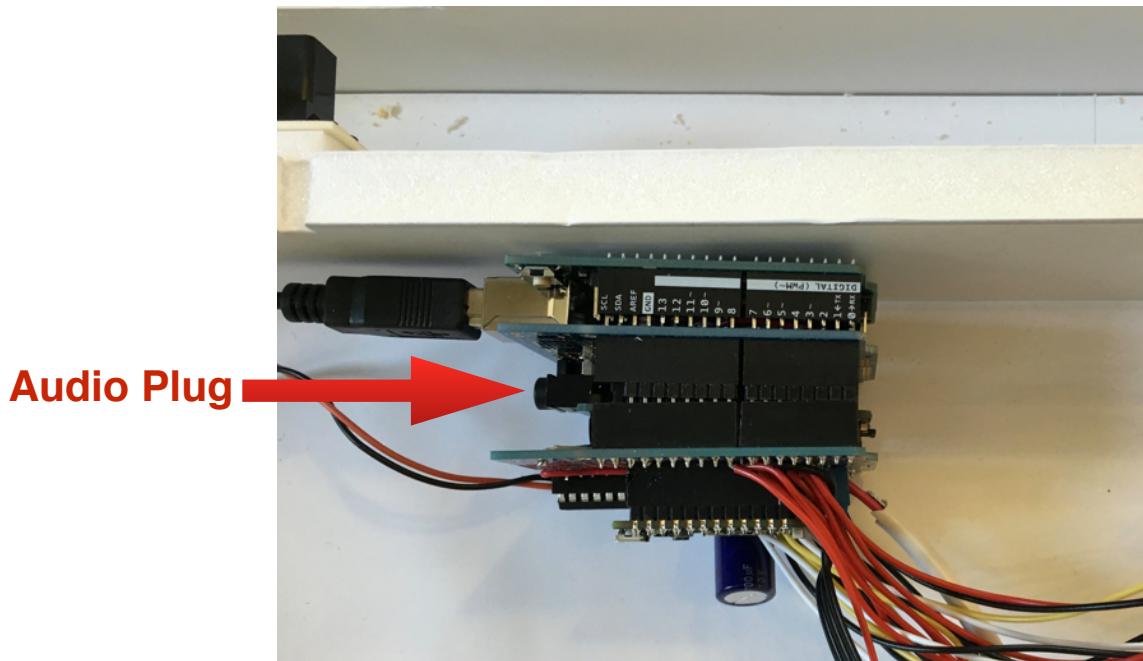
## Spotlight Cable

A pair of wires, one red one black, in a white jacket, are already attached to the Arduino and come out of the bottom of the model, labeled "Spotlight Cable". Inside the extra-parts box is a very long pair of similar wires (red and black in a white jacket) attached to a black box labeled "PowerSwitch Tail Kit", with the wires also labeled "Spotlight Cable". Insert the red and black wires into the white barrier strip, and tighten with a screwdriver.



## Audio Extension

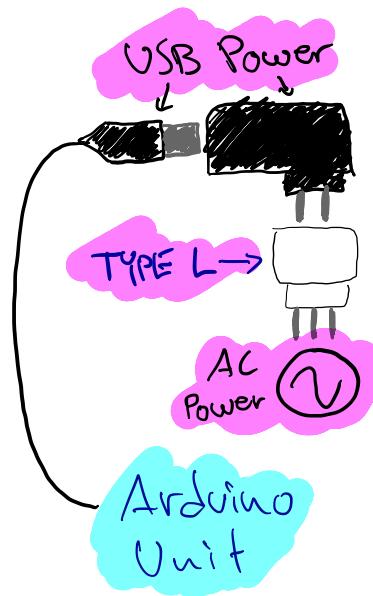
The “Audio Extension” cable needs to be plugged in directly to the Arduino. Lift the model off its box and find the Arduino unit; it should look like this:



The audio plug is directly on the Arduino unit on the left side, indicated by the red arrow above. Run the cable through the hole in the bottom of the model box.

## USB Power

The USB cable coming out of the model box labeled “USB Power” should be plugged in to the black power adapter also labeled “USB Power”, which can be plugged into the AC Power using the “Type L” adapter, like this:

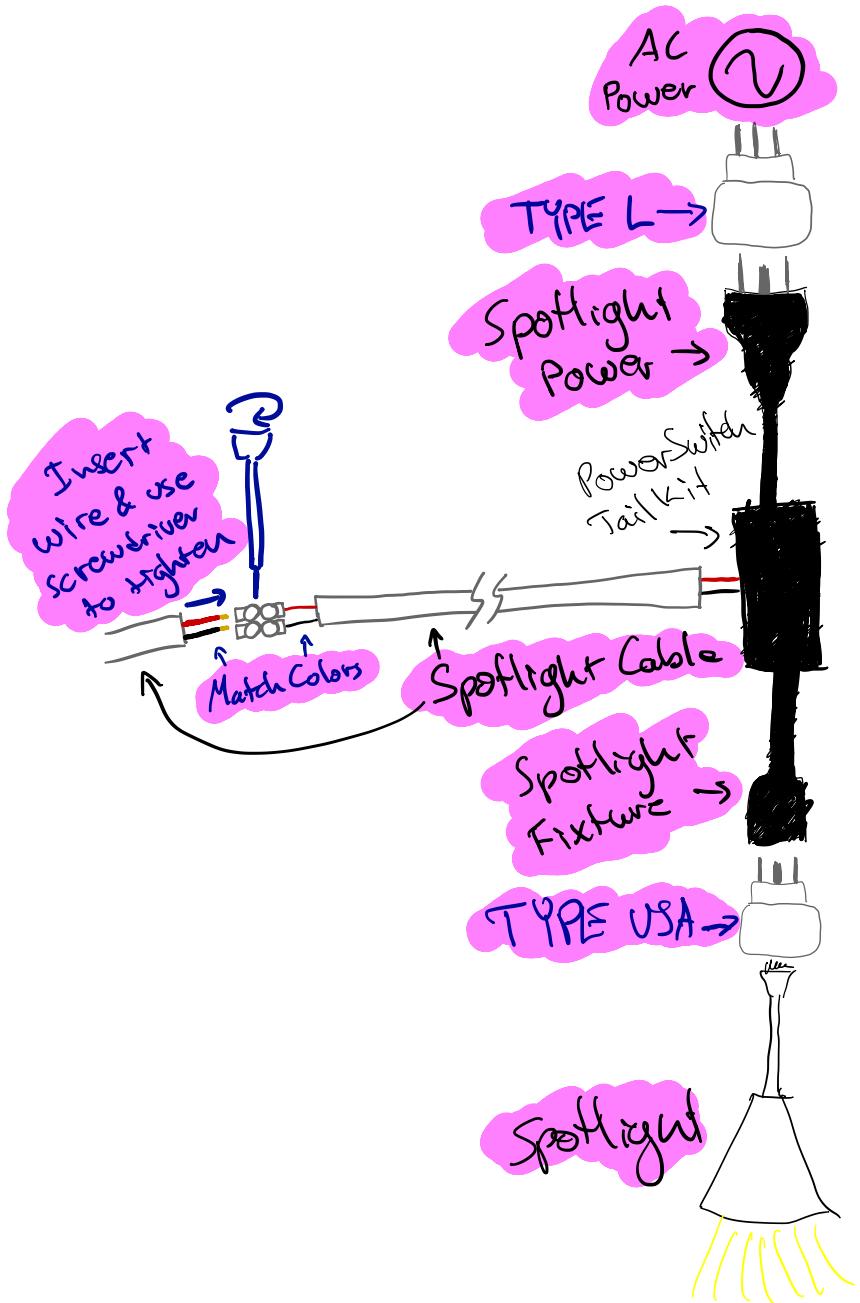


# Spotlight Setup

The spotlight has a signal input from the Arduino unit (white cable) and a power input from the mains and output to the lamp.

## Spotlight Power & Spotlight Fixture

Here is a diagram showing the full set up connections and labels, copied from the main system diagram. The "Spotlight Cable" was connected in an earlier step.



# Speaker Setup

Connect the speakers to the "Audio Extension" cable.

# Testing

To test the piece, stand away from any of the sensor openings in the base and press the red “reset” button under one corner of the model, then follow these directions:

1. Wait about 30 seconds for the sensors to self-calibrate; the lights inside the model should glow at a low level, and “background music” should start playing.
2. After 30 seconds, approach the piece; the lights inside the model should brighten.
3. Approach the piece quite closely; the internal lights should turn off and the spotlight should turn on, and the sound of a speech should start playing, interrupting the background music.
4. Step back from the piece; after about 7 seconds, the spotlight should turn off, the internal lights should turn back on, and the audio should go back to the background music.

If all this works: success!