

4 identical white panels

4 LCD/ projectors NO DLP-projectors

8 Martin Atomic 3000 DMX-strobe-lights + cables + folios

1 converter USB to MIDI, 1 converter MIDI to DMX

1 computer for parallel sound, image and DMX control

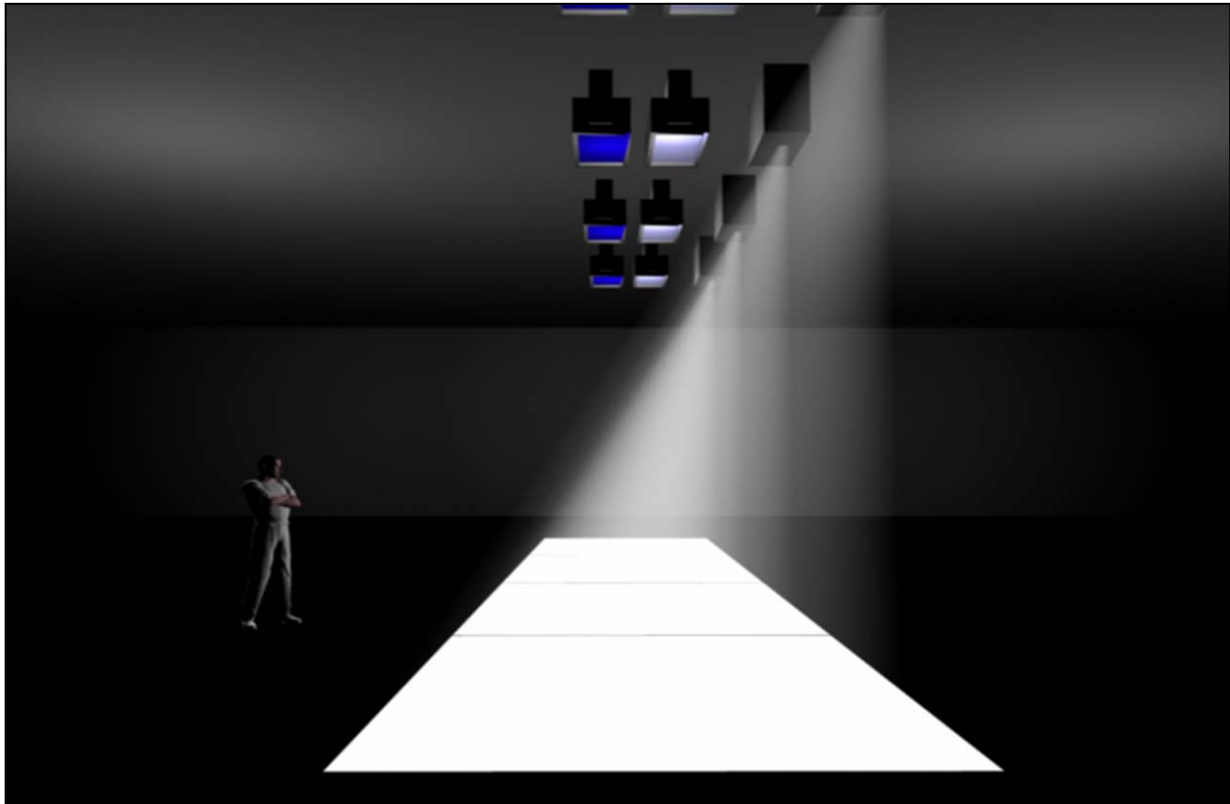
1 multi-speaker sound-system including a sub-woofer

### ELECTRICITY

**it is important to secure proper ground for the whole electric system.**

**A faulty ground or no ground for one component will destroy the MIDI/DMX interface**

**One independent circuit for only the 8 strobes of 16 ampere and NO other device connected to this circuit is crucial!**



**4 identical white panels**

- 2,8 x 2 x 0,04 each. other measurements may be appropriate depending of room dimensions
- exact 2cm gap between each panel.
- produced of medium density fibreboards (MDF panels) that has to be evenly suspended from ground
- surface is painted or covered pure highly reflective white
- (keep some identical material/ paint for possibly necessary restoration of the pure white surface)
- border faces of all panels are black.

**4 identical LCD videoprojectors,**

ANSI-lumen	2500 minimum
contrast ratio	800:1 minimum
LCD panel	3x1" (DLP panels may be unsuitable because of the hanging position of the projectors!)
additional wide angle lenses	1:1 (if ceiling is very high a long throw lens may be necessary)
native resolution	1024x768 or higher
lens shift	remote controlled H + V
focus	remote controlled !
input	VGA (RGB)
output	VGA (RGB)

*All projectors display the same signal, all of one source, but every second projector displays a mirrored image Rear projection instead of front projection setting. It is crucial to obtain one perfectly equal image.*

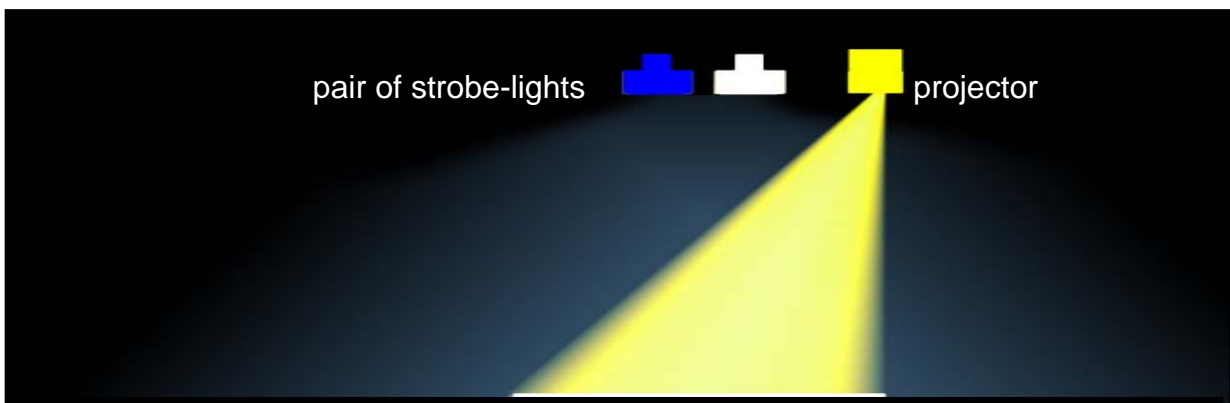
*VGA in- and outputs are needed to "daisy-chain" the projectors.*

*The projectors, mounted on the ceiling opposite side of the audience, projecting down. It is highly important that the projectors are hung precisely straight so that no keystone is needed.*

*As room heights are in general not higher then 4 metres wide angle lenses are needed to get an image diagonal of at least 3.3 meters.*

*Since precisely adjusting all projectors in that height is time consuming the must not be touched once arranged.*

*Thus, lens shift and focus have to be remote controlled.*



**8 strobes Martin ATOMIC 3000** detailed A3000 specs find at <http://www.martin.com/product/product.asp?product=atomic> and attached "SPEC\_Atomic3000.pdf"

The strobes will be placed in pairs (one blue one white) centred over each panel.  
 Four pairs of strobes are allocated to four panels.  
 Each pair is centered above and facing down one panel.  
 Each pair consists of one blue and one white strobe with blue folio. Both strobes need diffusion folio.

*diffusion foil for all strobe-lights:* usable for high temperatures i.e. "254 New Hampshire Frost" by lee filters).  
*Blue foil for 4 strobe-lights:* (usable for high temperatures i.e. "079 Just Blue" by lee filters).  
*for 4 pairs of strobes* Metal black foil "CINEFOIL 1" to reduce light spill.  
*to be fixed onto the strobe-lights* by light matt black metal-gaffer tape:

**DMX-Cables:** 1 long 5 pole DMX cable (15 – 20 m) to connect computer to strobe-lights  
 7 short 5 pole DMX cables (5 m) to connect all strobe-lights

**DMX DIM Number on strobe**

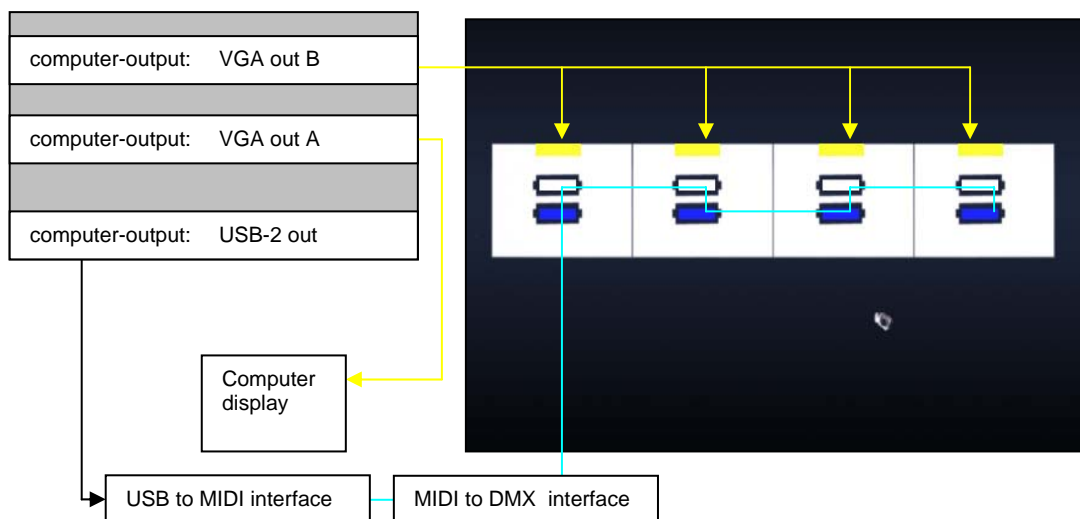
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**COMPUTER**

Signal source	1 computer linked, output VGA, USB2,LAN,PCI express
CPU:	Intel Pentium P4 3.2 Ghz or D 940 or better,
RAM:	1 GB
2xHD :	Western Digital 73.4GB SATA 73 u/min or better
Keyboard, Mouse:	English or German keyboard layout,
Software:	Windows XP professional (English or German version) + Service Pack 2
Stereo audio output	in good condition, no hum, no hiss
Graphic card:	NVidia PCI Express Graphics-card 6600 or better
	output 1 feeds 1 beamer
	output 2 feeds the control monitor
<u>control monitor</u>	<u>(1280 x 1024 minimum resolution) only one in total is needed</u>
<u>IMAGE</u>	<u>1024 x 720 30 frames per second</u>

**2 USB to MIDI to DMX controller** provided by the Artist

*The USB to MIDI to DMX devices are delicate electronic components that are sensitive to improper ground, power surges and other electrical anomalies. Ground- lift of any component of the installation or any other kind of faulty electrical system may result in total failure of the interfaces.  
 A second device is necessary on stand by!*

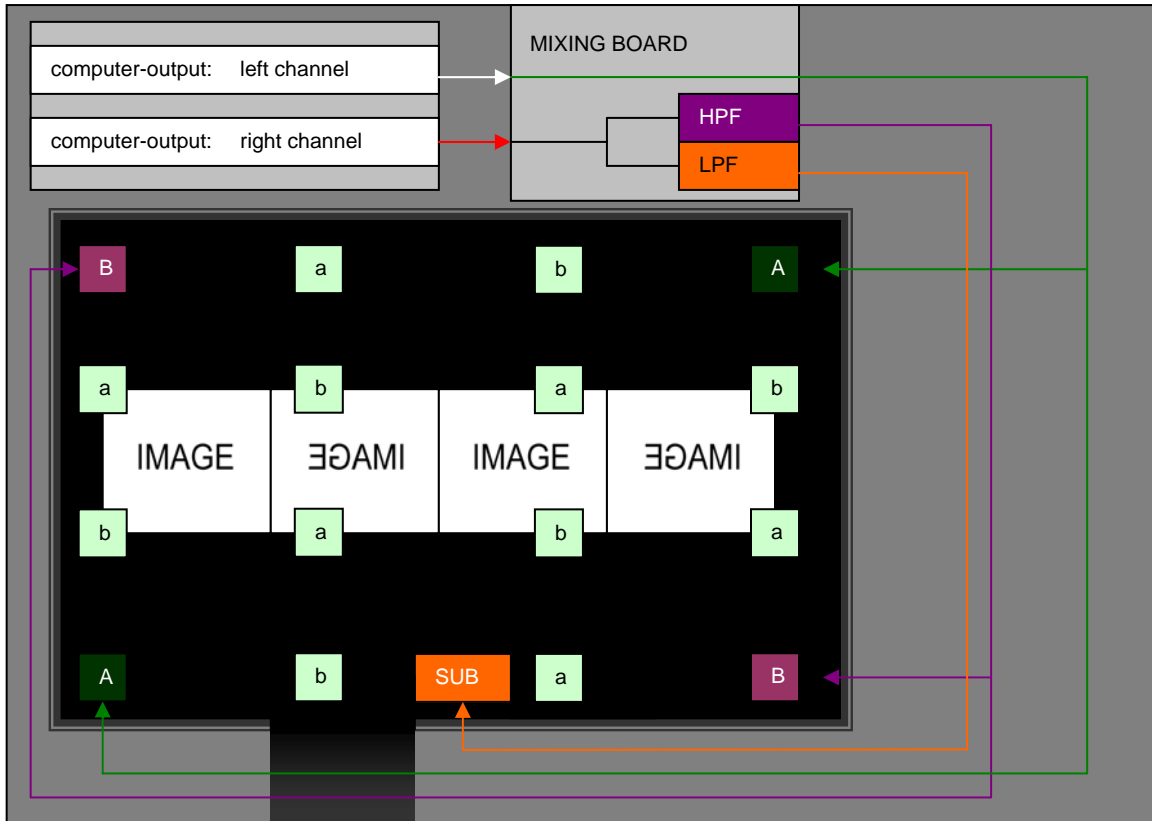


**AUDIO + SUBSONIC** The audio information leaves the computer as a standard stereo signal

Left channel	100Hz to 10 000Hz	= A	into 2 or more speakers	100 watt sinus total
Right channel	100Hz to 10 000Hz	= B	into 2 or more speakers	100 watt sinus total
	50-100Hz	= SUB	into subwoofer	1000 watt sinus total

Use discrete small speakers for full range, more speakers with less power per speaker are better, all possibly flying.

The image below shows the position of the minimum amount of speakers. All squares named "a" and "b" indicate additional positions in case of more than the minimum amount of 4 speakers available. Those speakers would again display just one side of the stereo signal. Arrange for an invisible or discrete position for the subwoofer.



**SPACE REQUIREMENTS**

- The space must be absolutely dark; light is emitted only by the video projectors and the strobe-lights. The floor should be covered with a black carpet, for maximum light absorption. All walls and the ceiling are black.
- A small space or compartment is necessary for the audio distribution, -mixing and Computer equipment, This area must not be accessible to the audience.
- An entry gate situation should be constructed / created to block out any ambient light from entering the space while visitors enter or leave the installation. This can be achieved by constructing a sort of labyrinth, or by installing a double door. In any case this gate also prevents sound from exiting the installation space and therefore reduces the sonic impact / disturbance on a neighboring installation or setting.