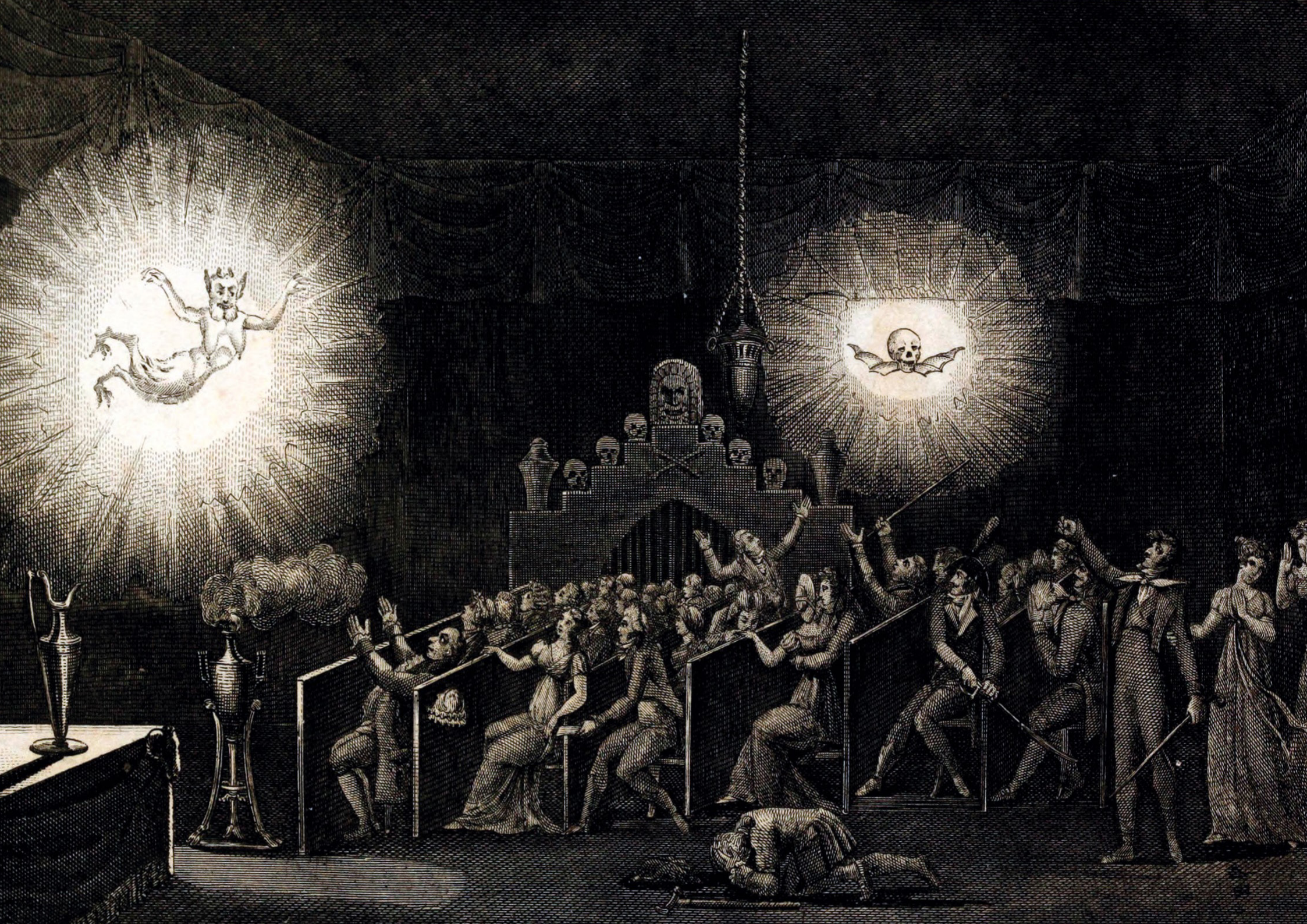


EIGEN GRAU



# PHANTASMAGORIA ANALYSIS

historical order

Stage magicians Athanasius Kircher

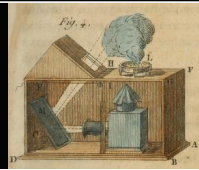
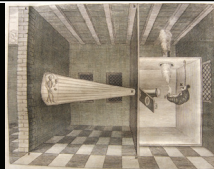
Esmé Gilles Guyot

Johann Georg Schröpfer

Paul Philidor

Étienne-Gaspard Robert "Robertson"

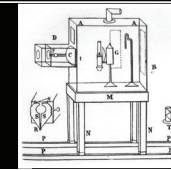
Media Object



smoke  
flickering

Argand lamp, which produced a much stronger light and thus enabled larger audiences to see the images

mobile back-projection  
rolling on wheels



rolling on wheels  
changing the zoom in and out  
smoke  
flickering  
semitransparent screen

Content

Metaphysical symbolism  
the original light source symbolizes God (lux) if the lens and the slide symbolizes an angel and man respectively, the image projected on the screen is furthest away from God, and properly depicts and symbolizes Death, demons and Hell

The first appeared in a beautiful white habit, the other in beige, the third in very ugly brown, almost black....the voices in which they answered his questions rang hollow, as if they had no larynx, which he called Ghost Speech."



Gothic novels  
contemporary politics  
ghosts  
demons  
witches  
supernatural  
exotic  
morbid  
association

Sound

hollow voices spoken through concealed tubes, and thunder sound effects

sound of the thunderstorm

glas harmonica  
sound of the thunderstorm

Analysis

2 days before the event the audience had to deliver a photograph of the person to be able to get in contact

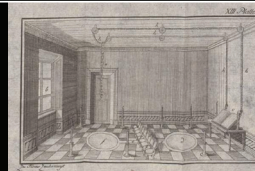
Scenography  
Location

Jesuit theater in Rome

assistants dressed as ghosts

coffeeshop  
Leipzig

audience standing in a circle



each will show himself in a different manner; one arises as already noted out of the floor, the second appears suddenly and is entirely there, the third appears from a gray cloud and evolves slowly into a figure that can be recognized clearly from his countenance.

abandoned Capuchin monastery  
little electrical shock effects in the chairs

Time

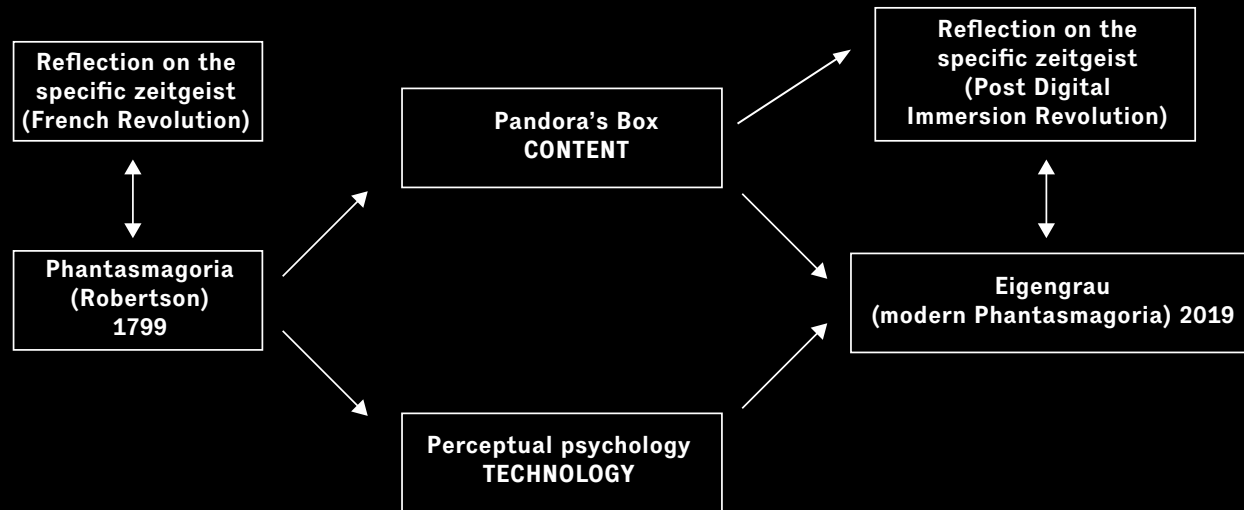
1 h 30 min

Why?

pressed the *laterna magica* into the service of the Jesuits' *propagatio fidei* in order to put the fear of God into their audiences by illuminating the devil

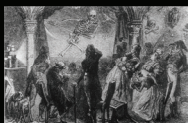
the 18th century society was believing in superstitious a lot

# PHANTASMAGORIA ANALYSIS



# PHANTASMAGORIA – EIGENGRAU ANALYSIS

220 years



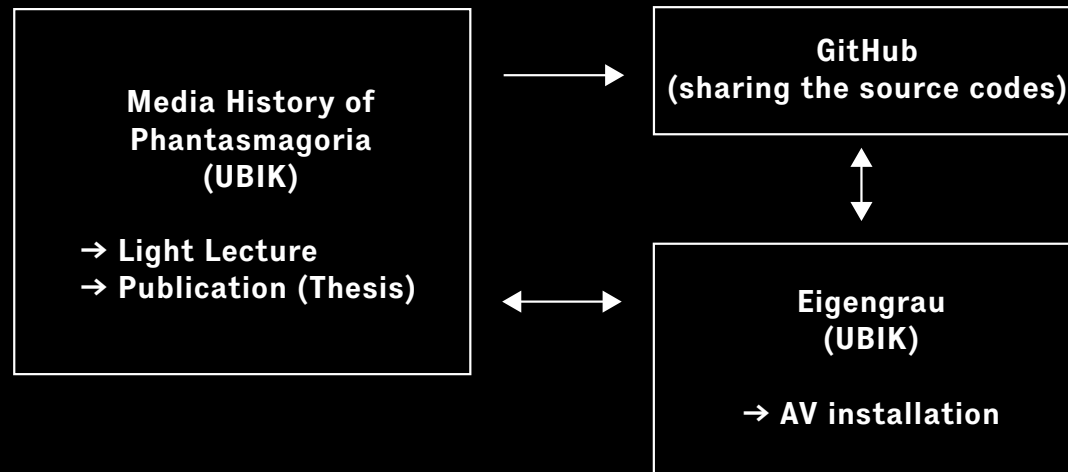
Robertson – Phantasmagoria (1799)



Eigengrau (2019)

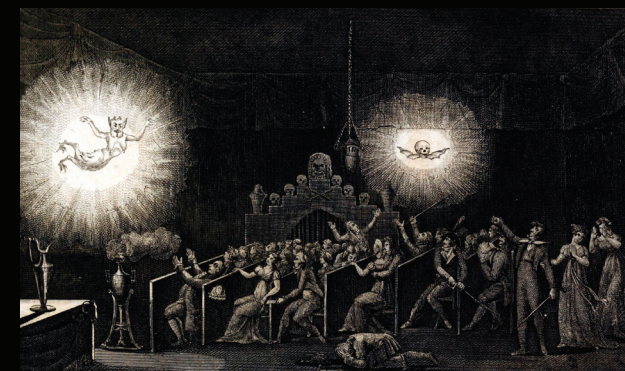
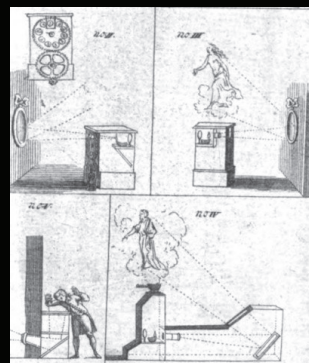
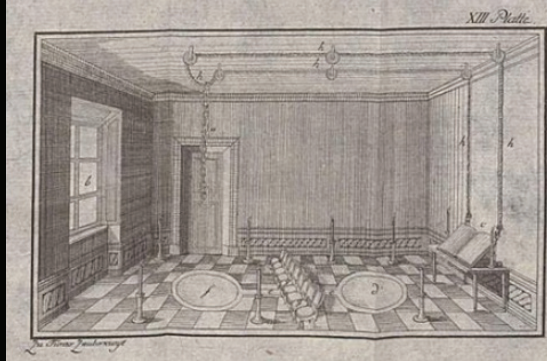
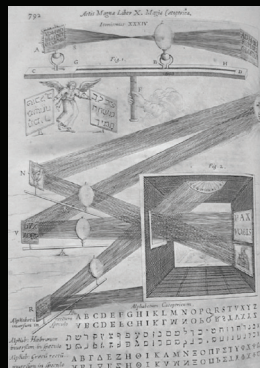
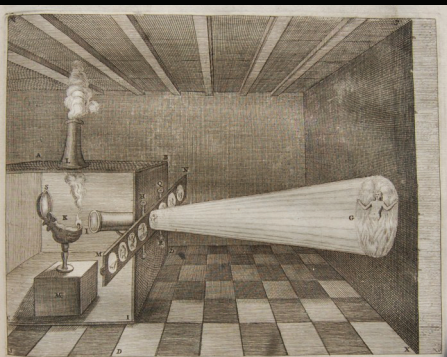
<b>Technology</b>  <b>(Perceptual psychology)</b>	context – entertainment purpose discarded Capuchin monastery	PinkPank – old freemason temple transformed into a club
	total darkness - eigengrau effect	total darkness - eigengrau effect
	spatial sound - glas harmonica sound of the thunderstorm	spatial sound - 4D sound glas harmonica, drone and noise sound
	flicker effect by fast changing of the images in front of the lens	flicker effect by LED curtain strobe effect and the fast moving of the mirror      anticipation state high state
	afterimages (ghosts appeared in the brain)	afterimages (images appear into the smoke and move further in the brain)
	projector rolling on wheels changing the zoom in and out	moving mechanically the lens between the light source for different light beam effects
	using smoke as a projection screen smoke becoming an interface	using smoke as a projection screen smoke becoming an interface
	Argand lamp, which produced a much stronger light	
	technology (mechanism) is not visible	
<b>Content</b>	reflection at the zeitgeist – French Revolution (1798) - uncertain future	reflection at the zeitgeist – Information Age (2019) – unknown future
	Pandora's Box myth as reflection at the zeitgeist	Pandora's Box myth as reflection at the zeitgeist – Pandora's Box = Internet
		The ritual mode of communication (Carey) Individual vs Collective
		Pandora's Box - only hope remains inside - symbolising with blue color - shape of the installation - reference to the vase (?)
		lucid dreaming, alpha waves, Liminality

# GRADUATION PROJECT SETUP



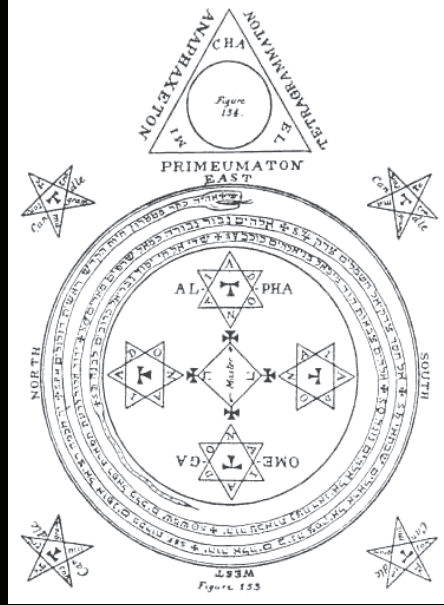
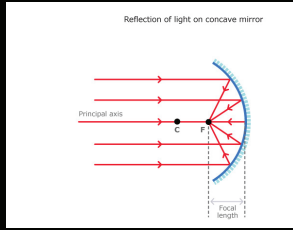
**EIGEN GRAU  
INSTALLATION**

# PHANTASMAGORIA SETUP RESEARCH

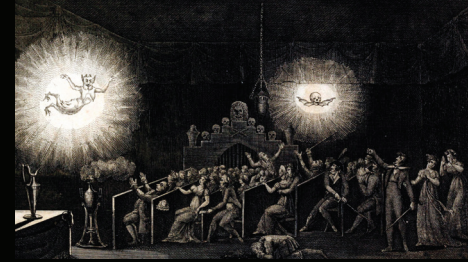




**MOODBOARD**

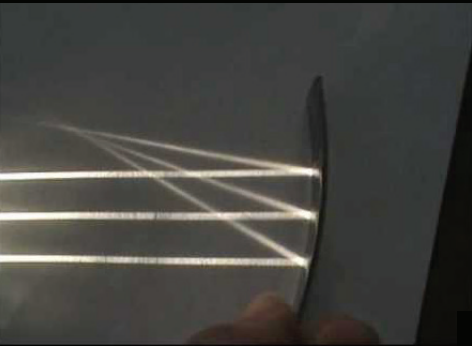
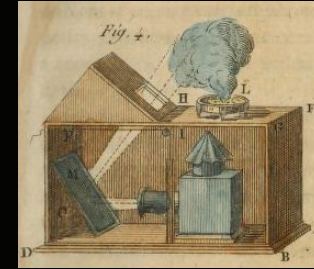


**MAGIC CIRCLE**



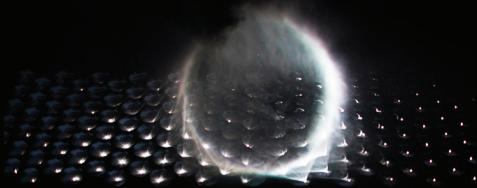
**PHANTASMAGORIA**

**CLUB CONTEXT**



**CONCAVE MIRROR**

**SMOKE**



**SPIRITUALISM**

**REFLECTION OF OUR  
ZEITGEIST = POST DIGITAL  
IMMERSION REVOLUTION**



**RITE**

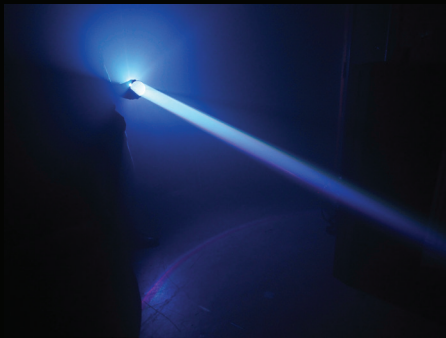


**THE OPENING OF  
PANDORA'S BOX  
→ METAPHOR**

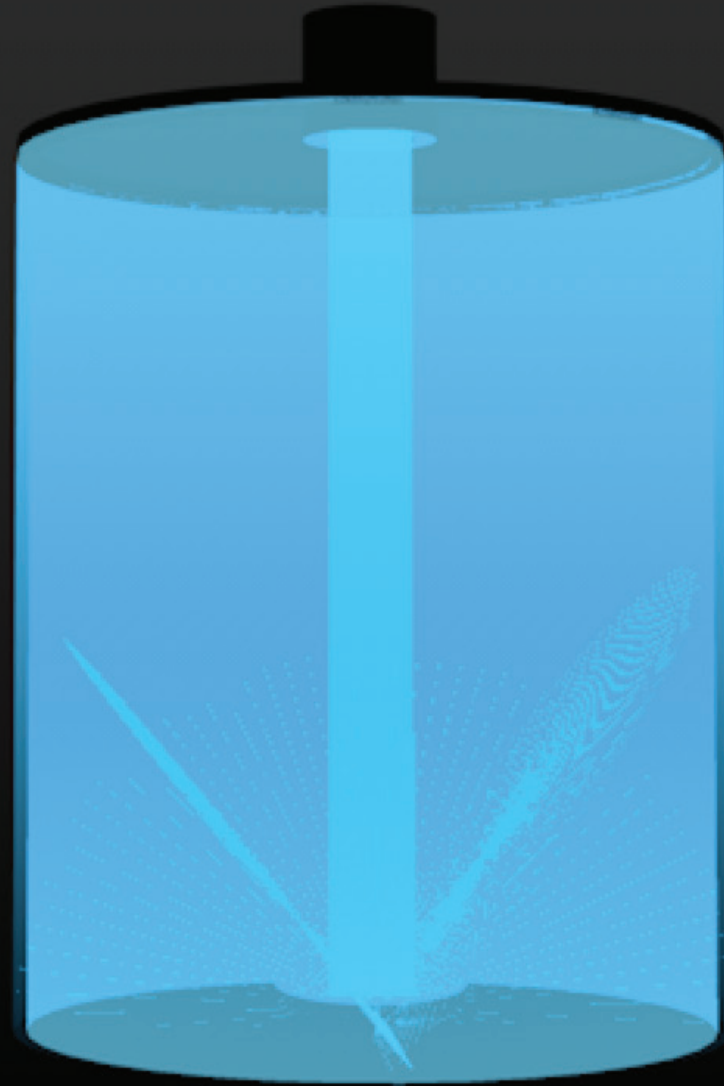


**SEANCE**

**CONVEX LENSES**



# EIGEN GRAU SET UP



## EIGENGRAU SET UP

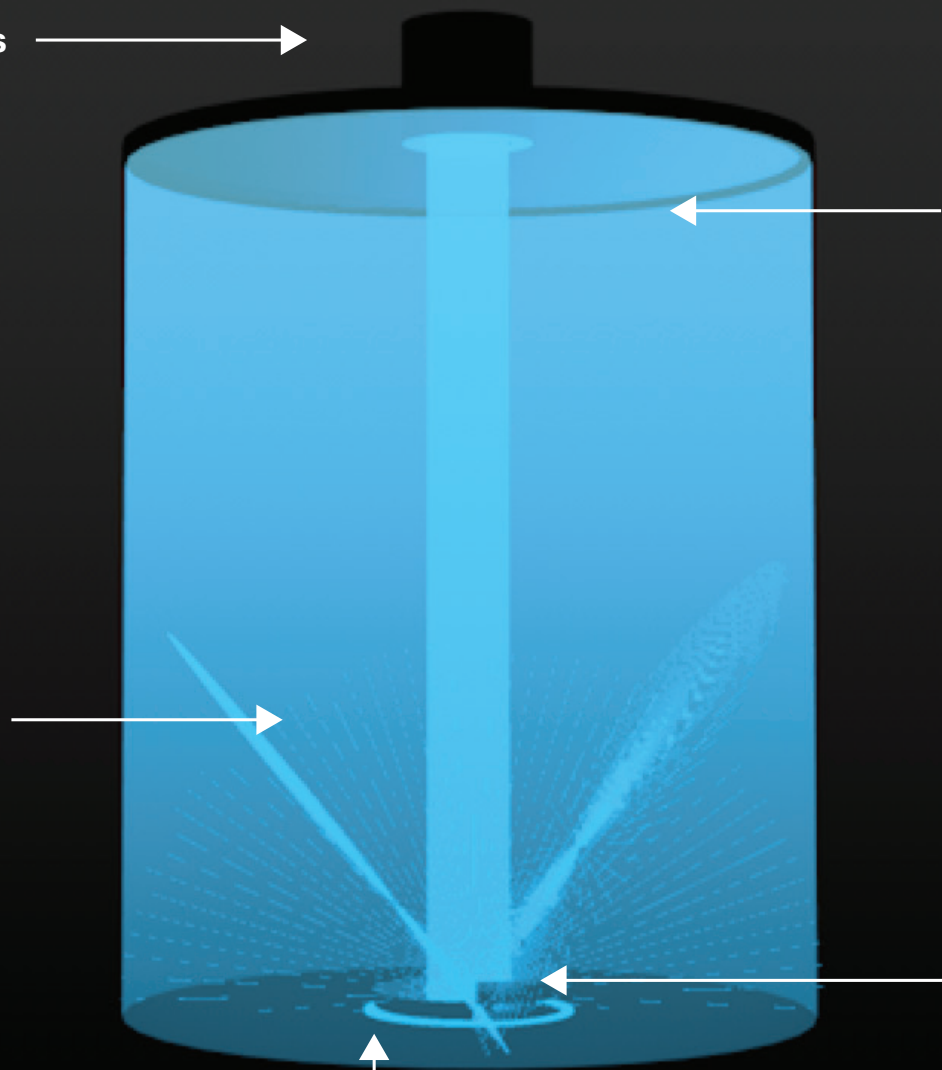
12W blue LED light beam with moving lens to change the light beam

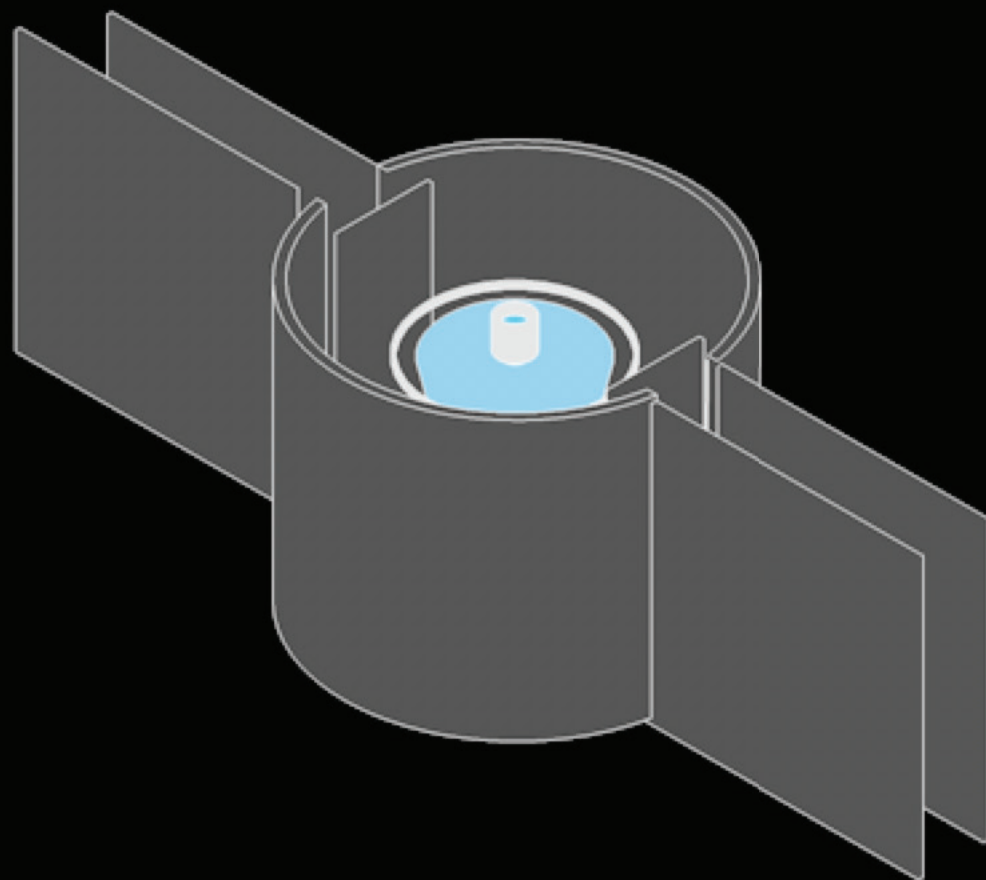
RGBW LED strip creating a curtain effect

reflections in the smoke (afterimage effects)

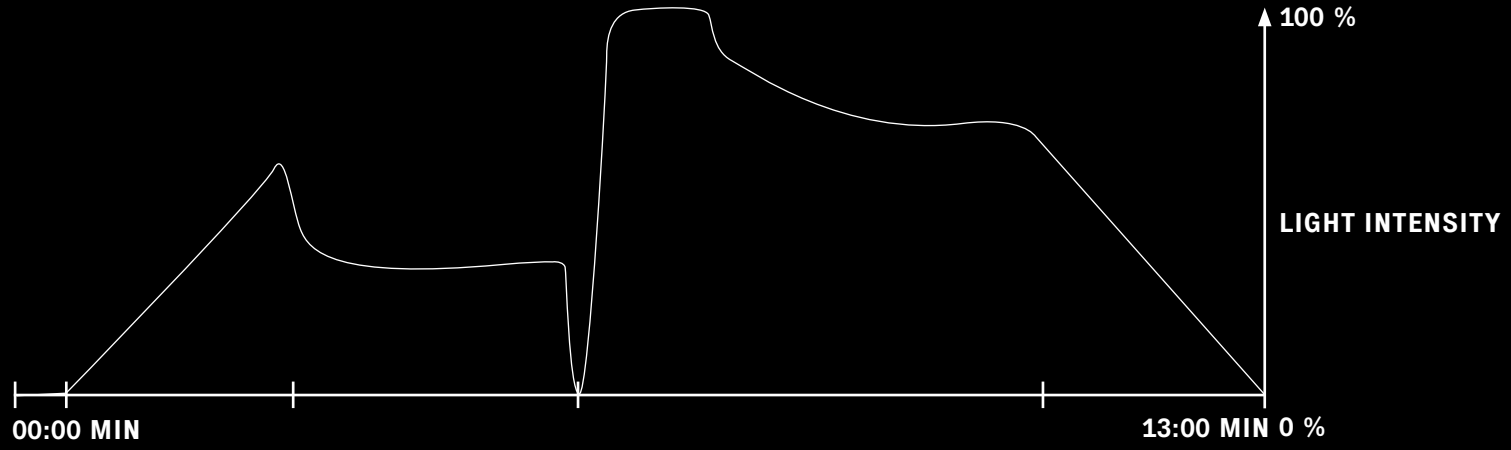
rotating mirrors

haze coming from underneath





# TIMELINE



1. DEEP STATE (00:00 – 00:30)

2. ANTICIPATION STATE (00:30 – 03:30)

3. CONFORTABLE WEIRD STATE (03:30 – 05:00)

4. HIGHER STATE (05:00 – 10:00)

5. RELAXATION STATE (10:00 – 13:00)

# MISE EN SCÈNE



## 1. DEEP STATE 0:00 – 0:30 min

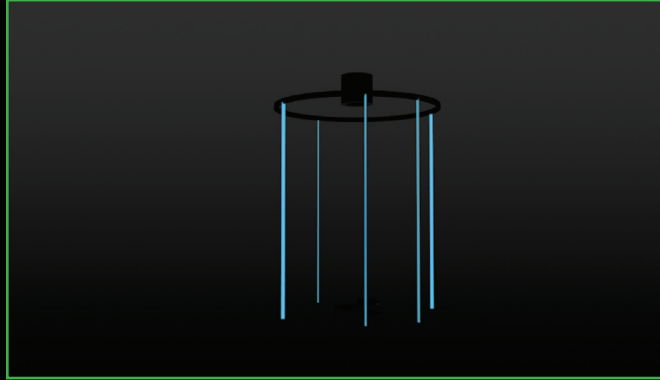
### NARRATIVE mental cleanse

cleaning up the mind  
pre meditation state  
there is something, but you don't  
know what it is. Tangible but not.  
leaving behind yourself  
going back to yourself  
restart of the brain

individual experience - not knowing if  
there are other people  
disconnecting from reality

**VISUAL**  
total darkness  
eigengrau (brains grey) effect

**SOUND**  
sound starts after 10 sec  
quick subtle noise sounds coming in  
irregular intervals from different sites  
weird sounds

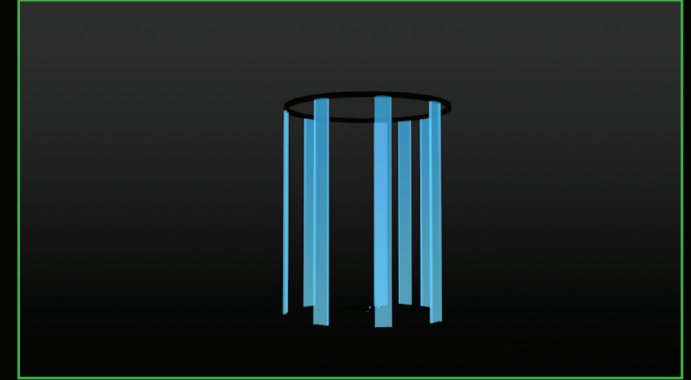


## 2. ANTICIPATION STATE 0:30 – 3:30 min

**NARRATIVE**  
creating attention that some-  
thing will happen in the middle  
being prepared for something  
new  
curiosity level begins:  
where I am?  
are there other visitors too?

what I am experiencing now?  
disorientation through sound and  
light coming from the opposite  
directions  
building up excitement  
audience is spread in space  
breaking the link to reality

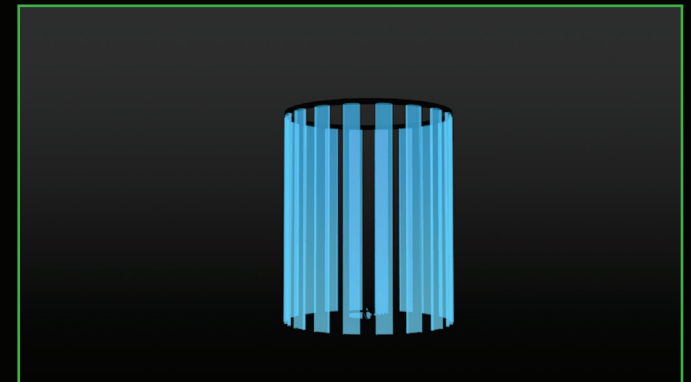
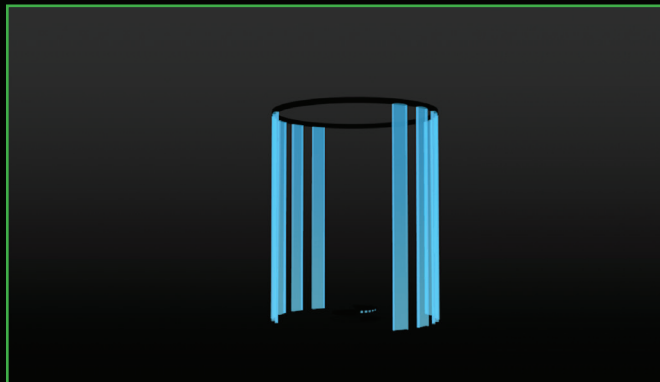
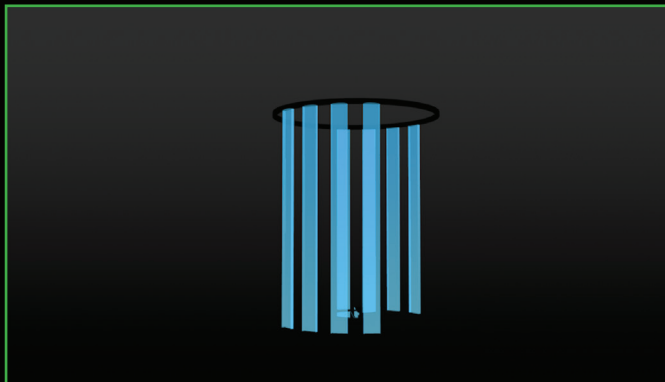
**VISUAL**  
cinematic  
curtain led circle top + button



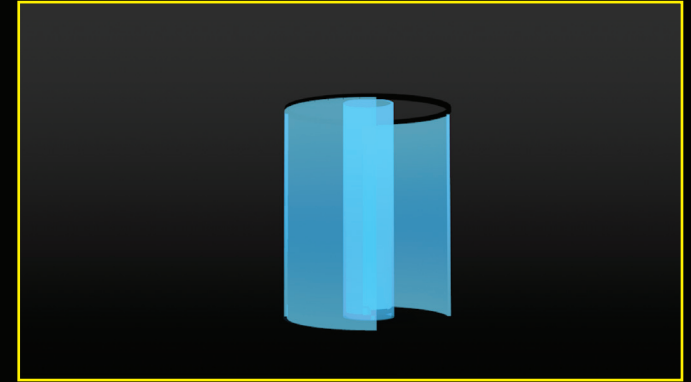
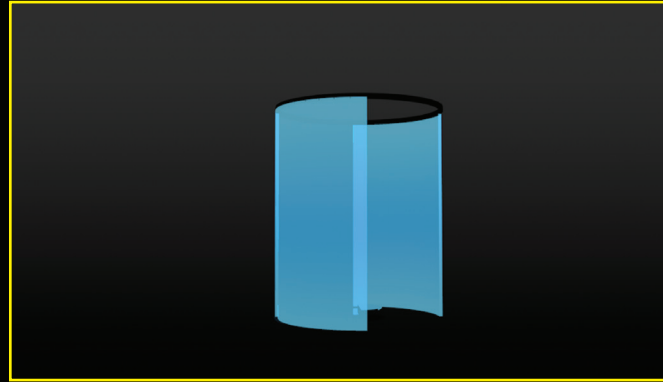
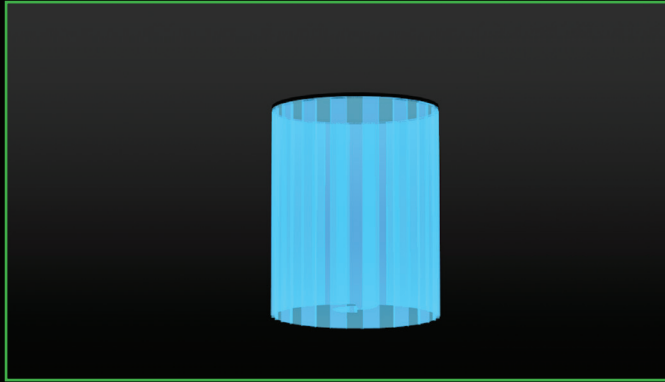
- first only small 1 px appear  
irregular  
from 3:00 min from the irregular  
1px -10px grid starts to begin  
slow and later faster strobe  
effect  
button and top  
from 4:00 min 50 px grid gets  
faster strobe  
top and button runs in the oppo-  
site directions

white color  
visitors think that at the fastest  
moment all the lights will appear  
afterimage through strobe - dis-  
orientate people  
interplay of the two rings  
first irregular - later regular  
faster and faster

**SOUND**  
rythmical sound - roly porter



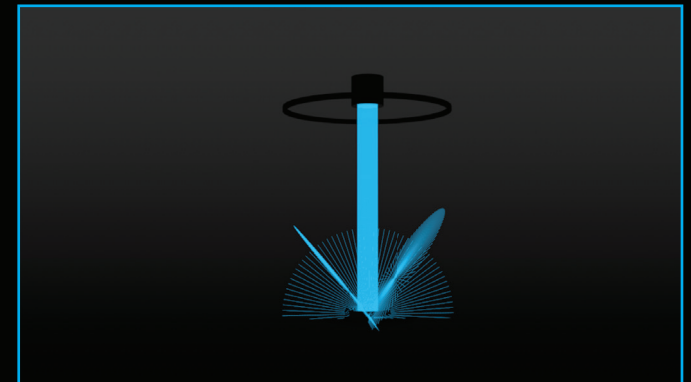
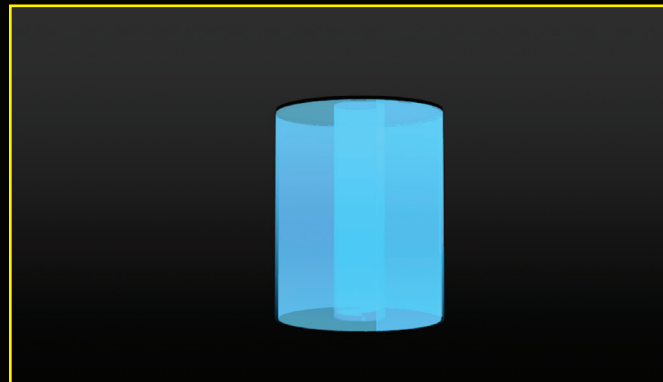
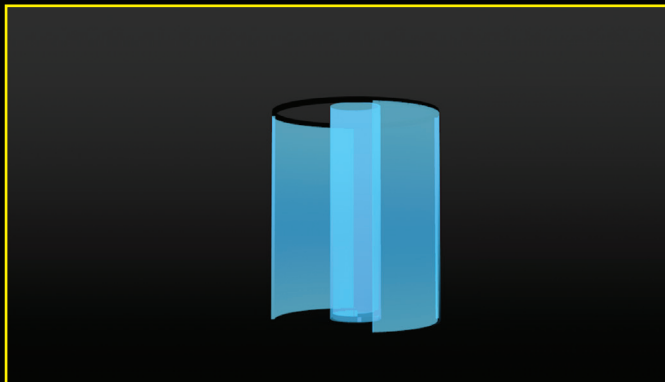
## MISE EN SCÈNE



**3. COMFORTABLE WEIRD STATE** SOUND  
03:30 – 05:00 min let people breath

NARRATIVE  
2-3 Moment of looseness /  
Harmonic  
let people breath

VISUAL  
light strong

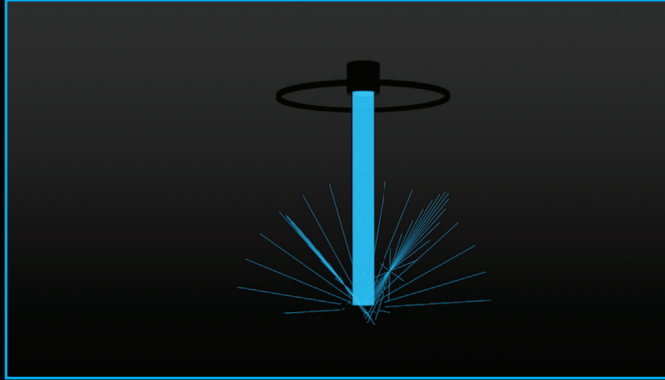


**3. HIGHER STATE**  
5:00 – 10:00 min

NARRATIVE  
opening pandora's box  
intimate experience through a  
group through being surrounded  
by a light curtain in a spiral way  
everyone could interpret it on  
his/her manner but feeling the

same ground message of con-  
nectives, spirituality, supernatu-  
ral, lumoid state of mind(?)  
audience is surrounding the mir-  
ror in a circular manner - feeling  
connectivity towards the rest of  
visitors  
ritual begins (ritual = repetition  
= rotating of the mirror)  
ghosts landscapes

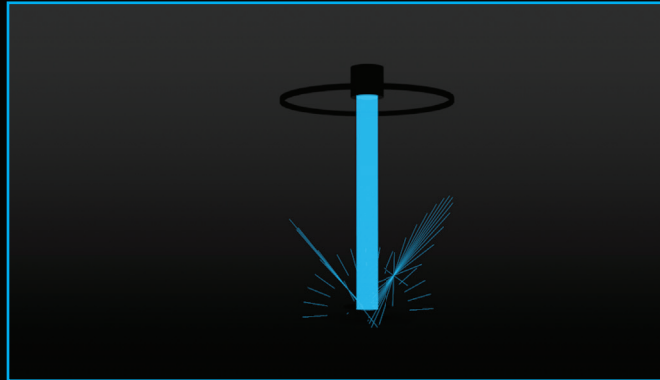
## MISE EN SCÈNE



super intense  
floating - disconnectivity  
opening the pandora's box - good and bad things are coming out

### VISUAL

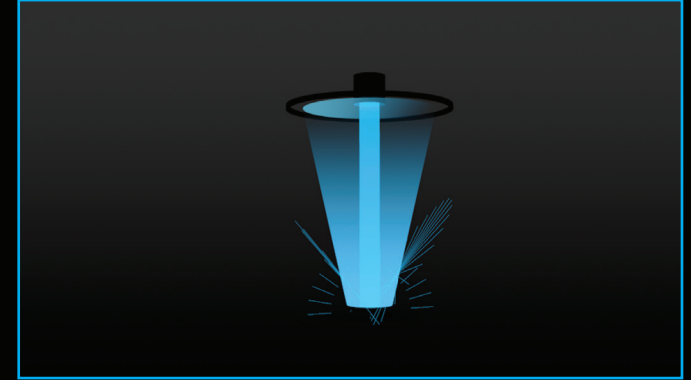
at the peak (5:00 min) the curtain led switches off  
middle light beam starts to shine from the ceiling blue light (less spatial effect) on the rotating mirror  
reflection in the smoke starts to appear  
afterimages starts to appear in the visitors mind - not knowing what is real and what is illusion



afterimage effect  
led curtain gone (?) - or only partly visible (?)  
breaking the borders of inside and outside  
smoke coming from above and underneath

### SOUND

super intense - let their imagination free



### 4. RELAXATION STATE

10:00 - 13:00 min

### NARRATIVE

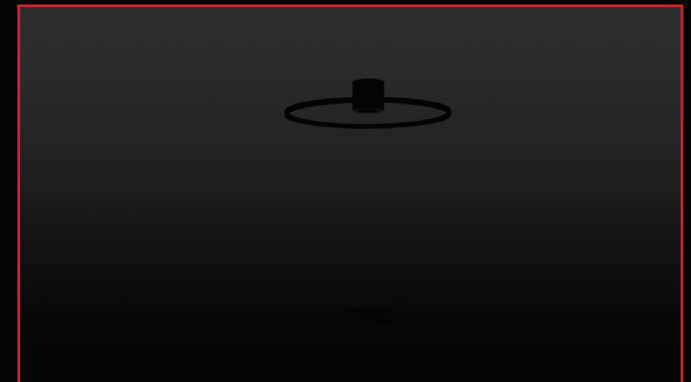
building down the excitement  
taking back the audience to reality, but with a strong group experience feeling  
getting back to reality

### VISUAL

mid light beam shines still  
no more reflections due the smoke is not coming anymore

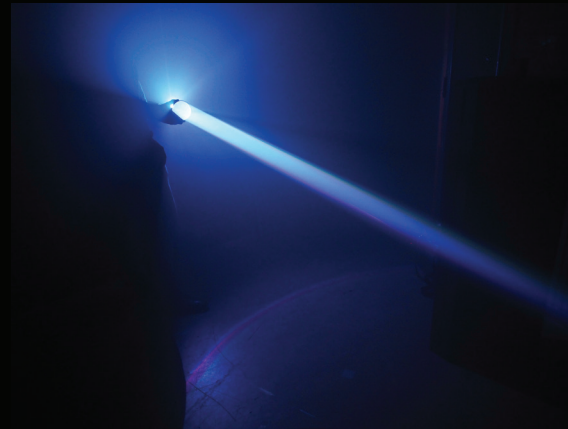
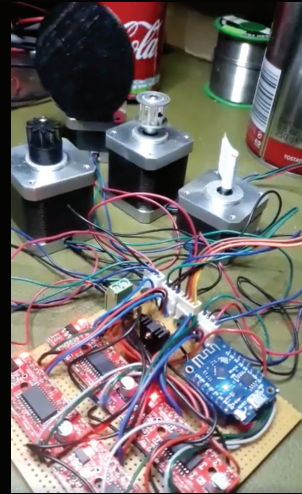
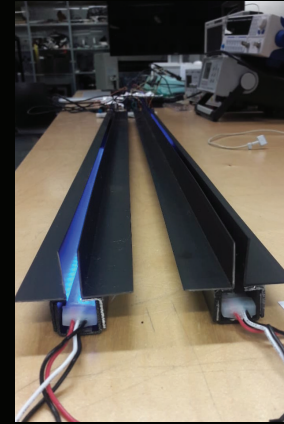
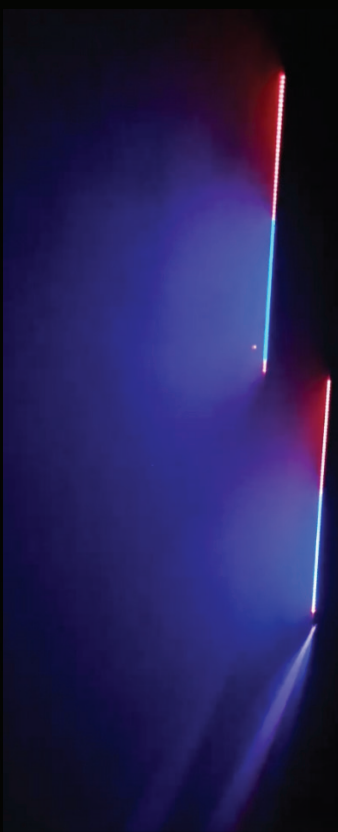
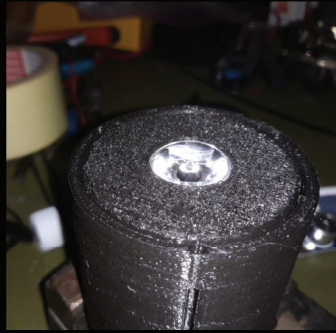


SOUND  
drone sound



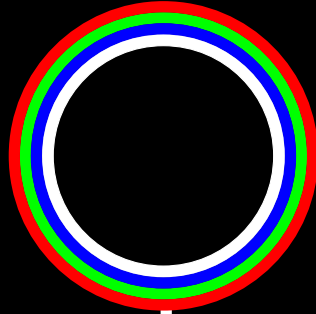


# CUSTOM MADE HARDWARE PROTOTYPING



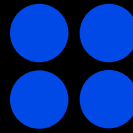
# EIGEN GRAU TECHNICAL RIDER

RGBW Adafruit  
Neopixel



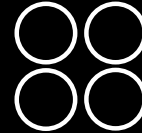
LED circle  
Arduino

4 x 12W blue  
light



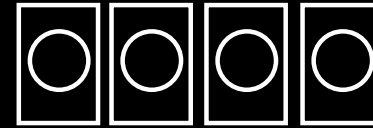
blue light  
Arduino

4 x  
stepper motors



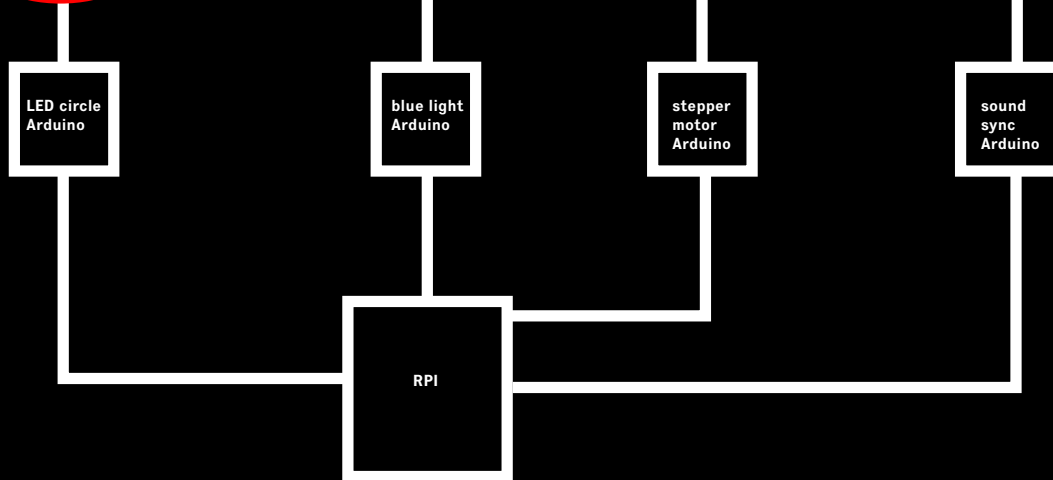
stepper  
motor  
Arduino

quadraphonic sound



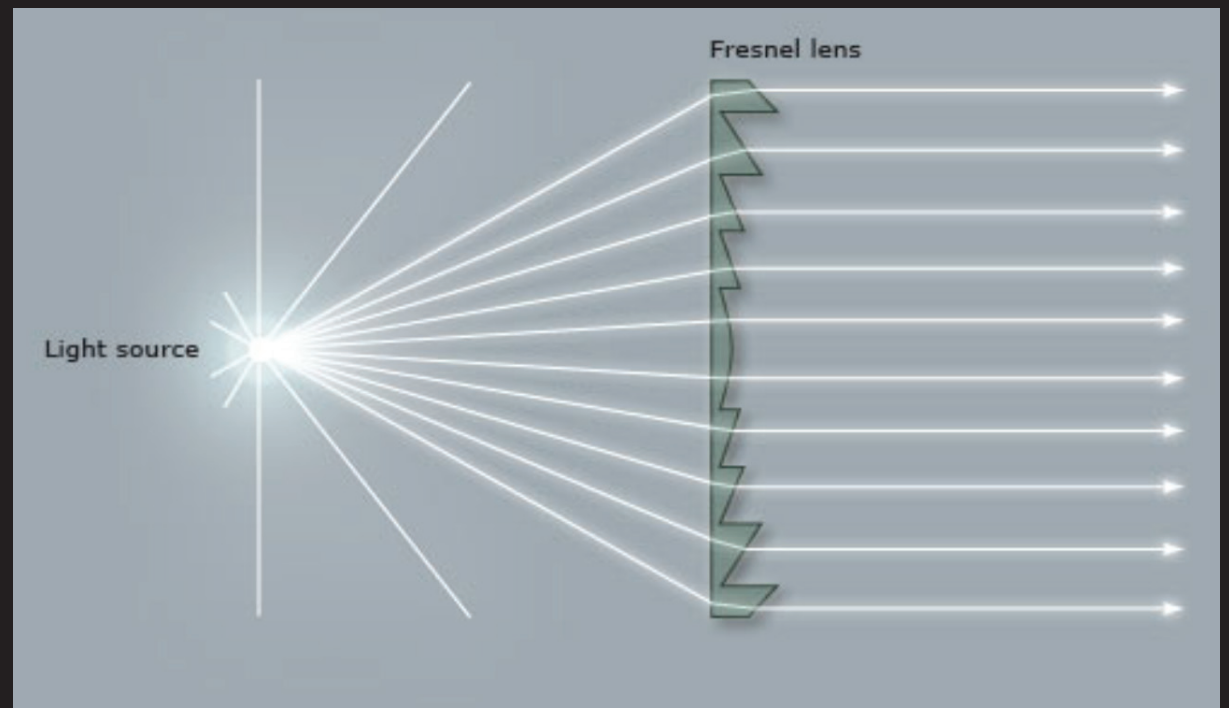
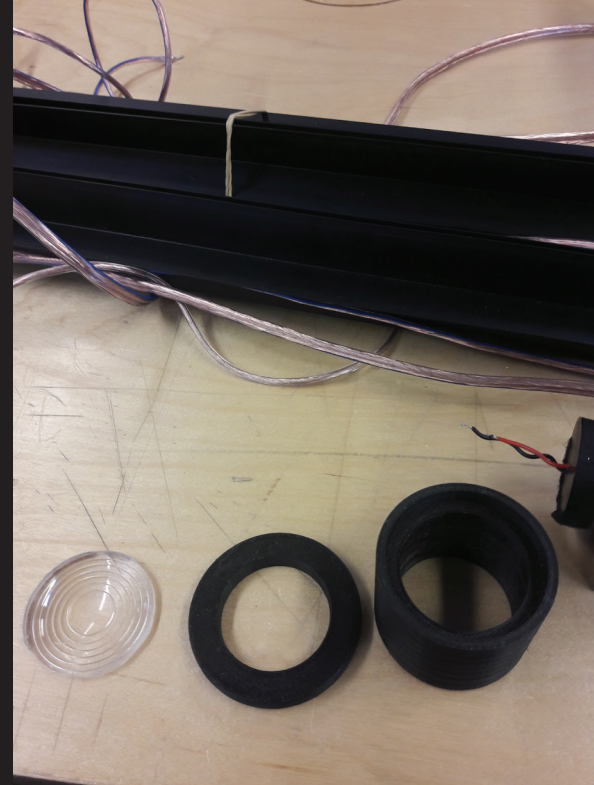
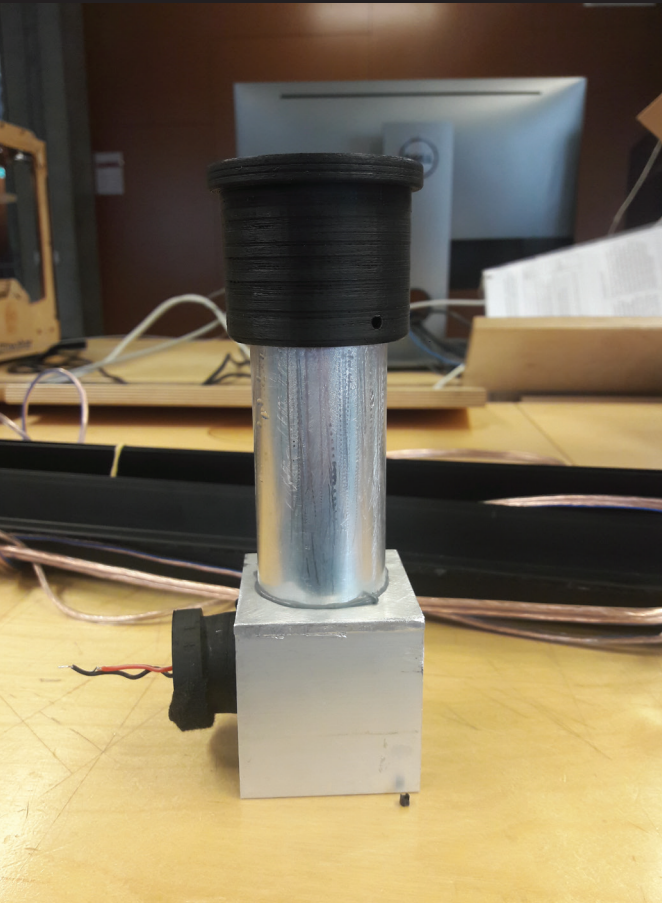
sound  
sync  
Arduino

RPI



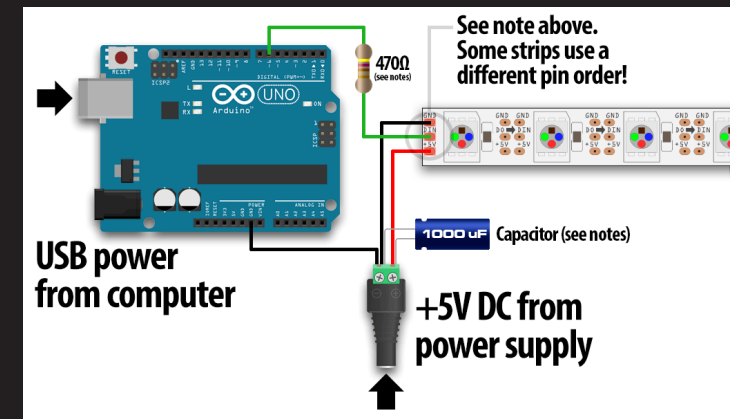
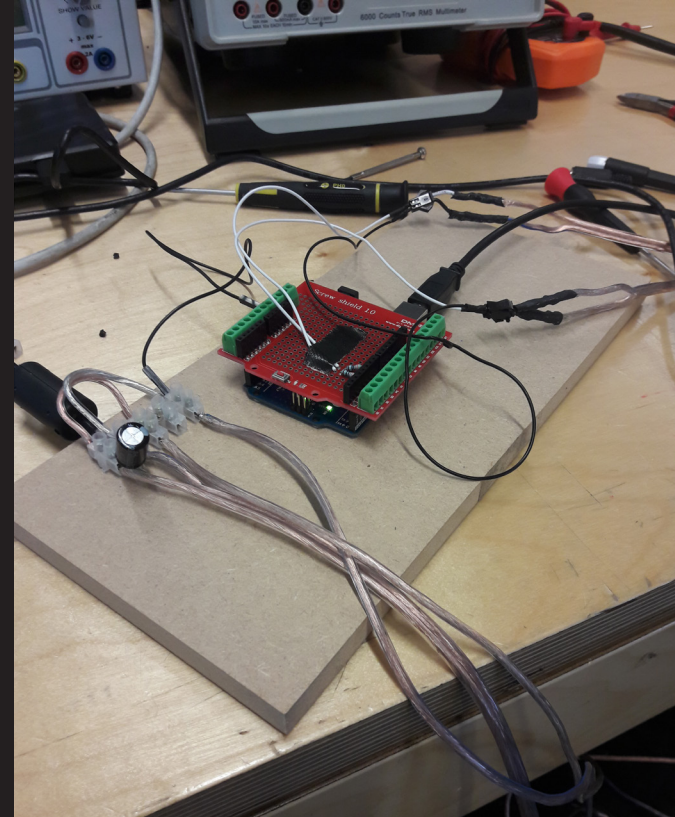
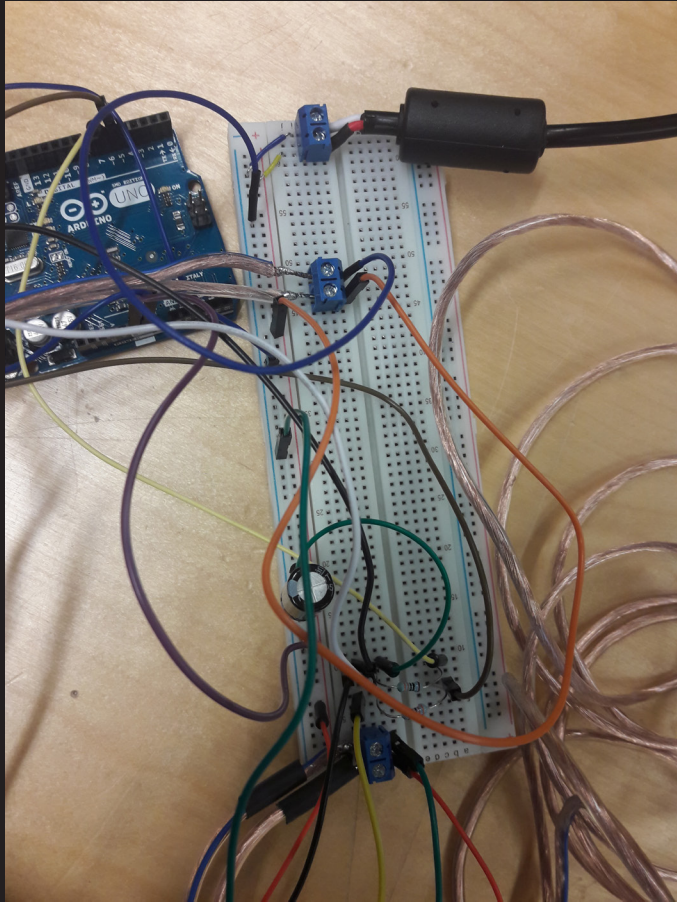
**EIGEN GRAU  
HARDWARE PARTS**

**12W BLUE LIGHT**



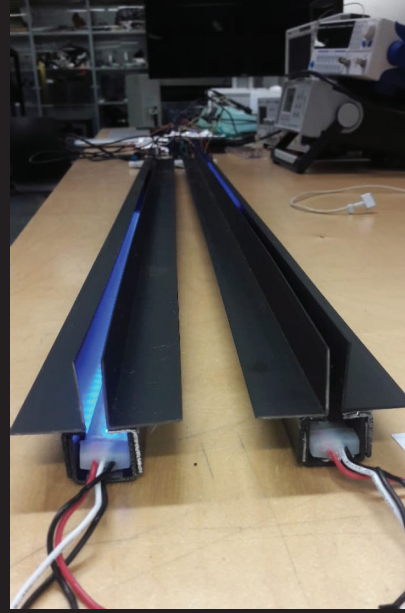
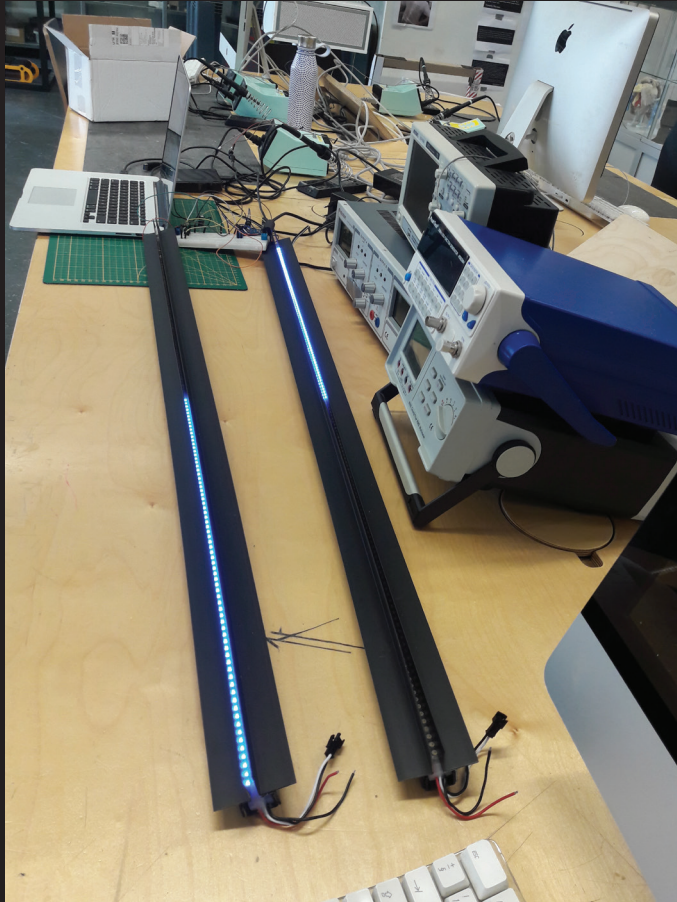
# EIGENRAU HARDWARE PARTS

## ARDUINO SETUP



**EIGEN GRAU  
HARDWARE PARTS**

**CUSTOM MADE LED PROFILES**

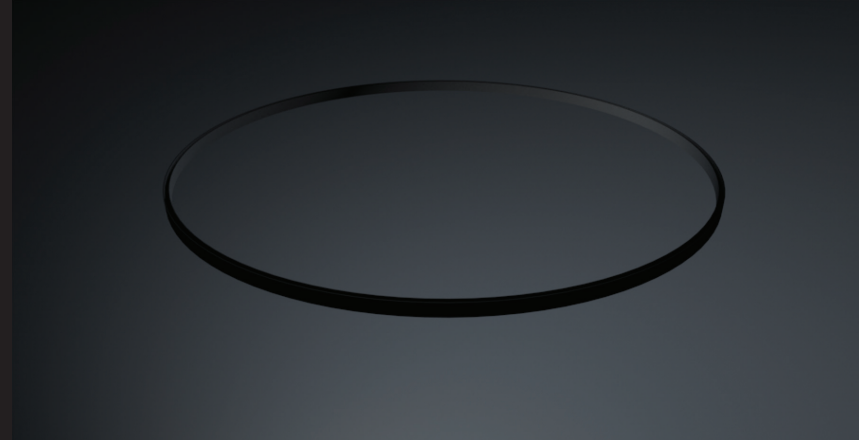
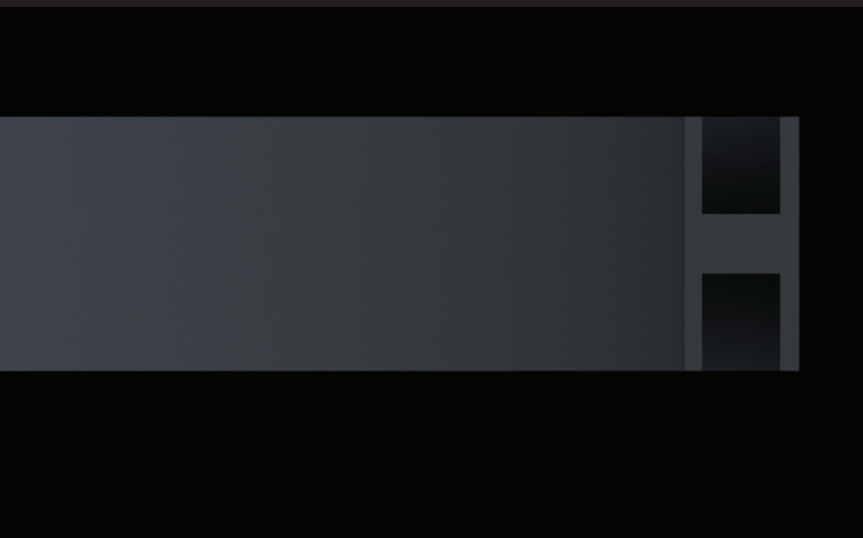


**EIGEN GRAU  
HARDWARE PARTS**

**STEPPER MOTOR**



**EIGEN GRAU  
CIRCULAR LED PROFILE**



```

2.eigengrau_assessment_openingup | Arduino 1.8.7

#include <Adafruit_NeoPixel.h>

#define PIN1 6
#define PIN2 5
#define NUM_LEDS 144

#define BRIGHTNESS 255

int currentExpansion = 0;
int maxExpansion = 14;
int interval = maxExpansion*2;

int currentStrip1led = (maxExpansion/2) + 1;
int currentStrip2led = NUM_LEDS/2;
boolean reverseAnimation = false;

byte reds[] = {0x00, 0x00, 0x00,0x00 };
byte greens[] = {0x00,0x00, 0x00,0x00 };
byte blues[] = {0x00,0xff, 0x00,0xff };
byte whites[] = {0xff, 0x50, 0xff,0x50};

int indexColorCircle = 0;
// Parameter 1 = number of pixels in strip
// Parameter 2 = pin number (most are valid)
// Parameter 3 = pixel type flags, add together as needed:
// NEO_KHZ800 800 KHz bitstream (most NeoPixel products w/WS2812 LEDs)
// NEO_KHZ400 400 KHz (classic 'v1' (not v2) FLORA pixels, WS2811 drivers)
// NEO_GRB Pixels are wired for GRB bitstream (most NeoPixel products)
// NEO_RGB Pixels are wired for RGB bitstream (v1 FLORA pixels, not v2)
Adafruit_NeoPixel strip1 = Adafruit_NeoPixel(NUM_LEDS, PIN1, NEO_GRBW + NEO_KHZ800);
Adafruit_NeoPixel strip2 = Adafruit_NeoPixel(NUM_LEDS, PIN2, NEO_GRBW + NEO_KHZ800);

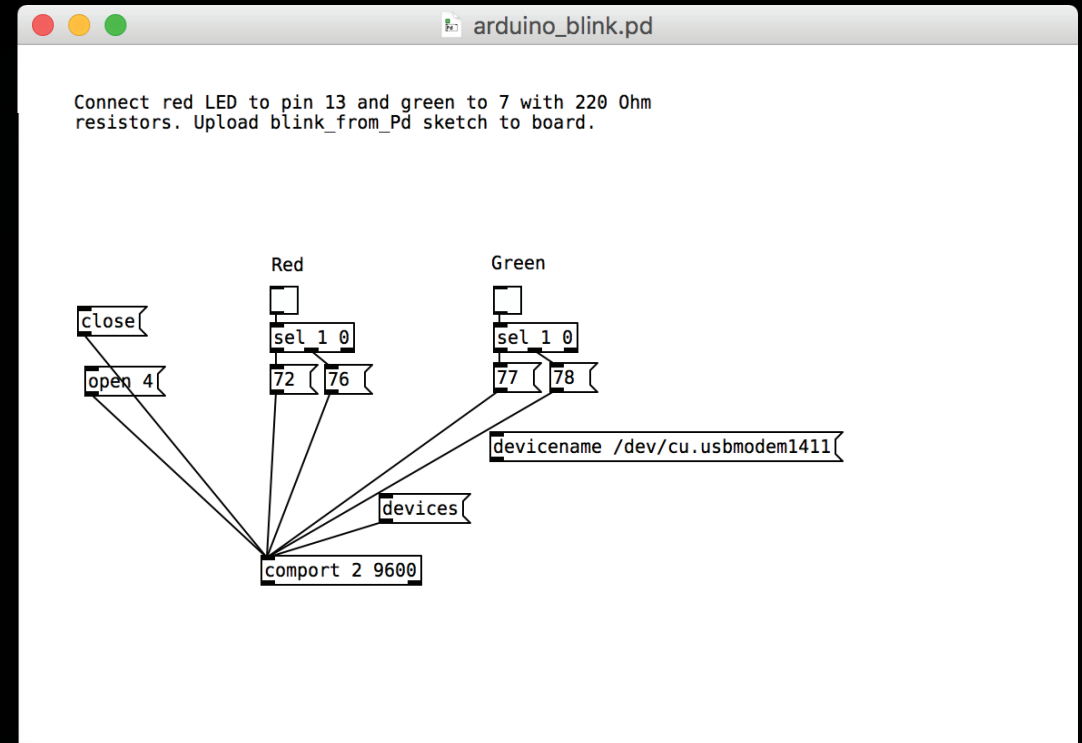
void setup() {
  strip1.setBrightness(BRIGHTNESS);
  strip1.begin();
  strip1.show(); // Initialize all pixels to 'off'

  strip2.setBrightness(BRIGHTNESS);
  strip2.begin();
}

Done uploading.

Sketch uses 3390 bytes (10%) of program storage space. Maximum is 32256 bytes.
Global variables use 67 bytes (3%) of dynamic memory, leaving 1981 bytes for local variables. Max
323 Arduino/Genuino Uno on /dev/cu.usbmodem1421

```

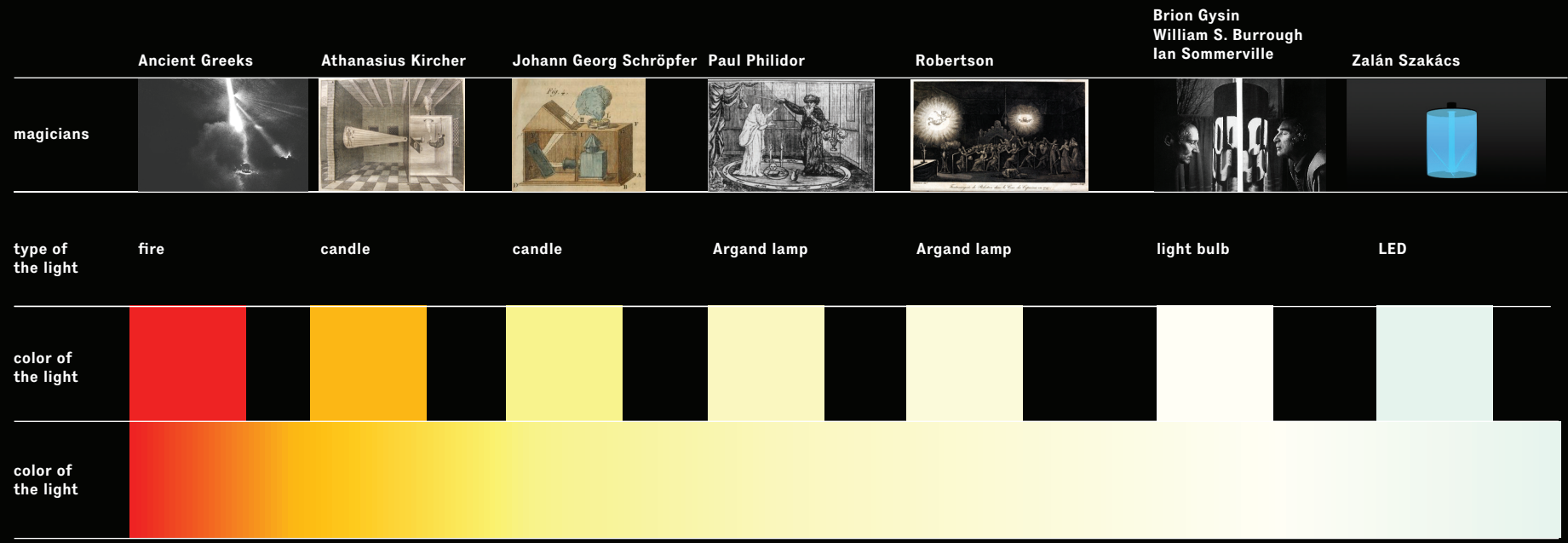




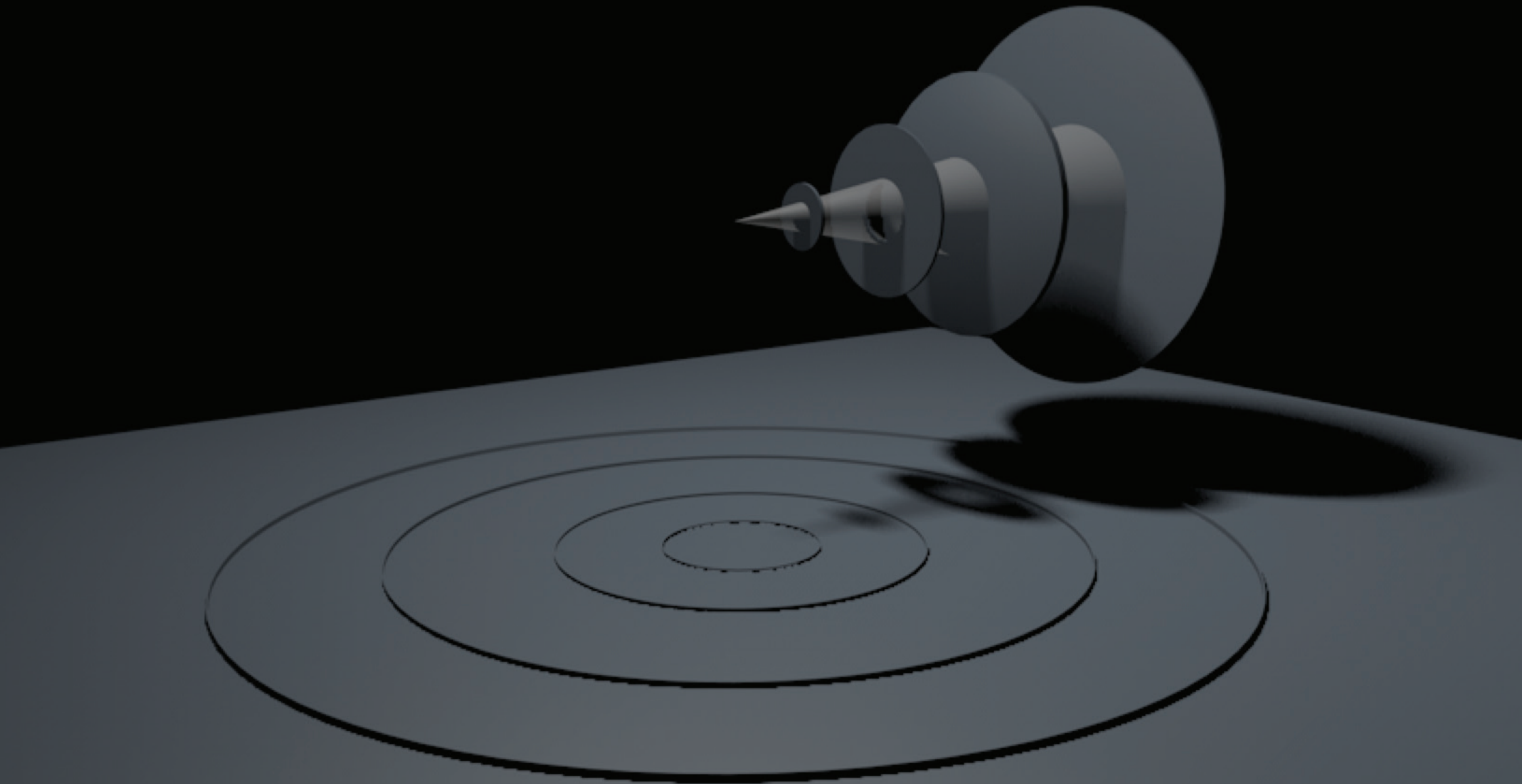
**EIGEN GRAU**  
**LECTURE PERFORMANCE**

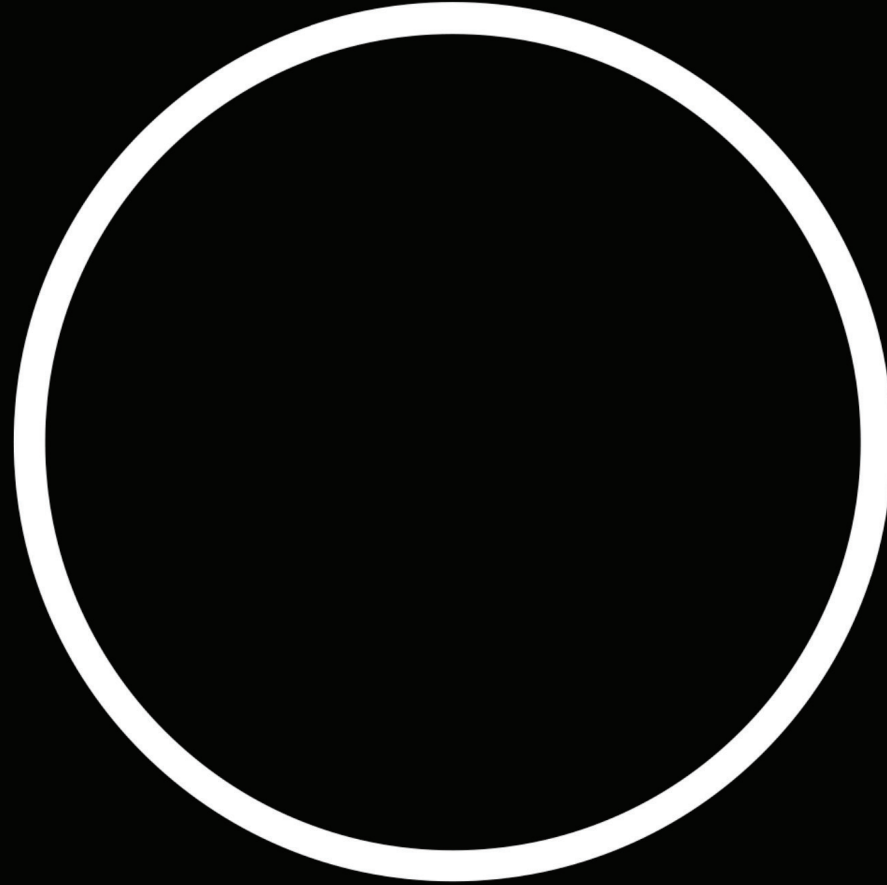
# EIGEN GRAU

## LECTURE PERFORMANCE

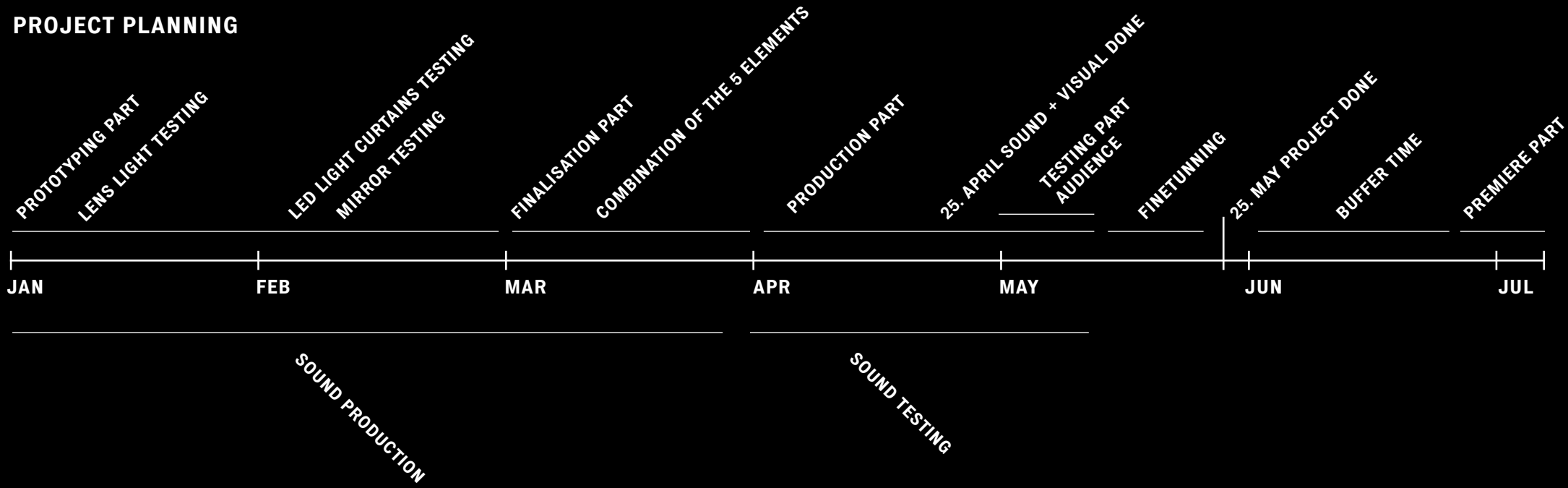


EIGEN GRAU  
LECTURE PERFORMANCE





# PROJECT PLANNING



## PROJECT STEPS

### PROTYPING PART:

JAN - FEB

LENS  
LED CURTAIN  
MIRROR  
SOUND

### FINALISATION PART:

MARCH

SOUND  
ANIMATION (LED CURTAIN)  
MOVEMENTS (LENS + MIRROR)  
PUTTING ALL 5 ELEMENTS  
TOGETHER IN ONE SOFTWARE

### PRODUCTION PART:

APRIL - MID MAY

LENS - LIGHT  
ROTATING MIRROR  
LED CURTAIN BIG  
LED CURTAIN SMALL  
INSTALLING IN SPACE  
SOUND

### TESTING PART:

MID MAY

LOCATION BUILD UP

### FINETUNNING PART:

END MAY

SOUND - LIGHT

### PREMIERE PART:

JUNE - JULY

24TH TO 28TH OF JUNE -  
PRESENTATION TEACHER

12TH TO 14TH OF JULY -  
OFFICIAL PRESENTATION

### DOCUMENTATION PART:

JULY

FILM  
VIDEO

### 5 ELEMENTS:

LENS - LIGHT HARDWARE  
ROTATING MIRROR HARDWARE  
LED CURTAIN BIG  
LED CURTAIN SMALL  
SMOKE  
SOUND

## **PROJECT TEAM**

### **RESEARCH, CONCEPT & VISUAL DEVELOPMENT**

**ZALÁN SZAKÁCS**

### **SOUD DESIGN**

**SÉBASTIEN ROBERT**

### **LIGHT TECHNOLOGY & HARDWARE**

**JULIUS KEIJZER**

### **ARCHITECTURAL ADVISOR ANNA KACSO**

**REMEMBER THE  
PHANTASMAGORIA!**