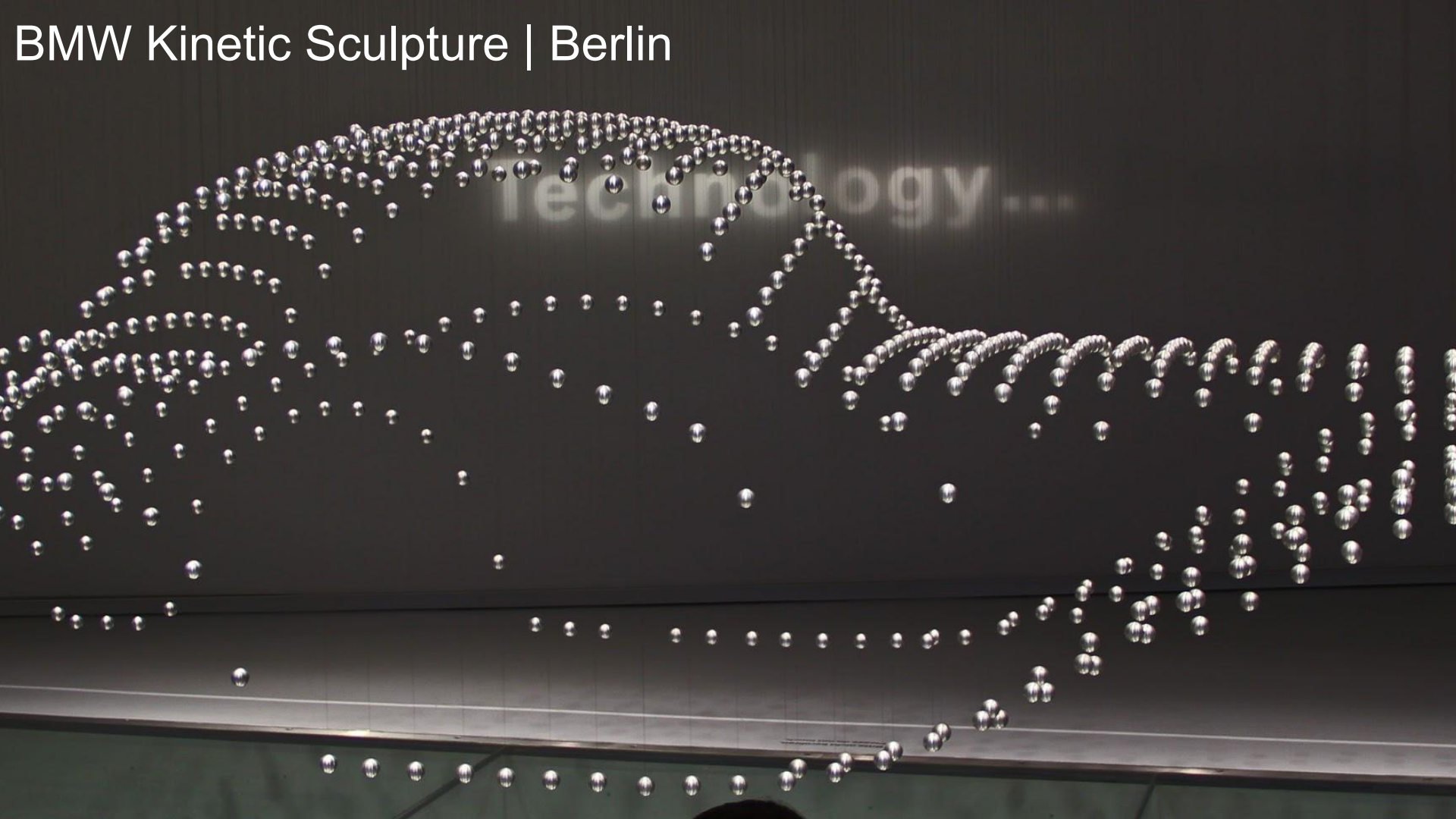
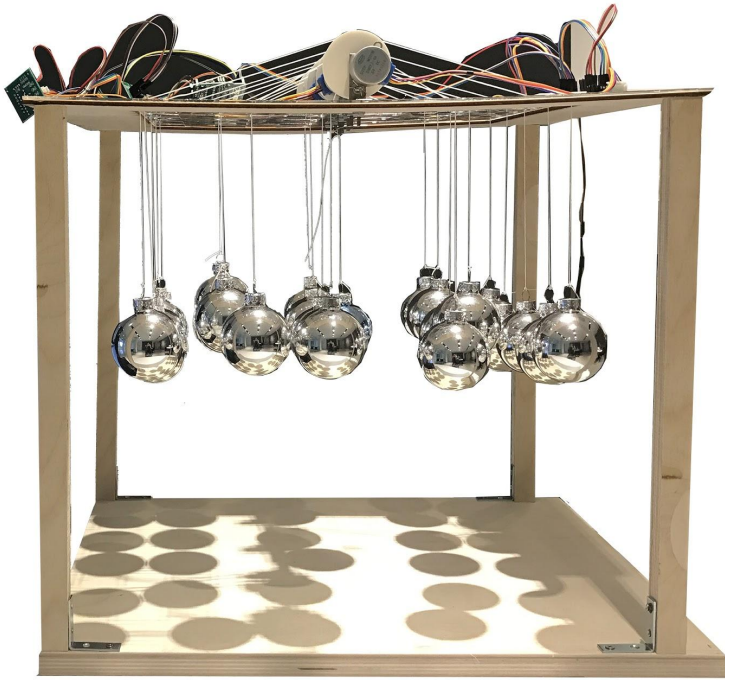
900 Sq.Ft of Silence

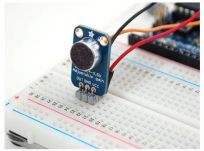
Team: Yumeng Chen
Shen Gao
Yushi Zhao

BMW Kinetic Sculpture | Berlin





Sound

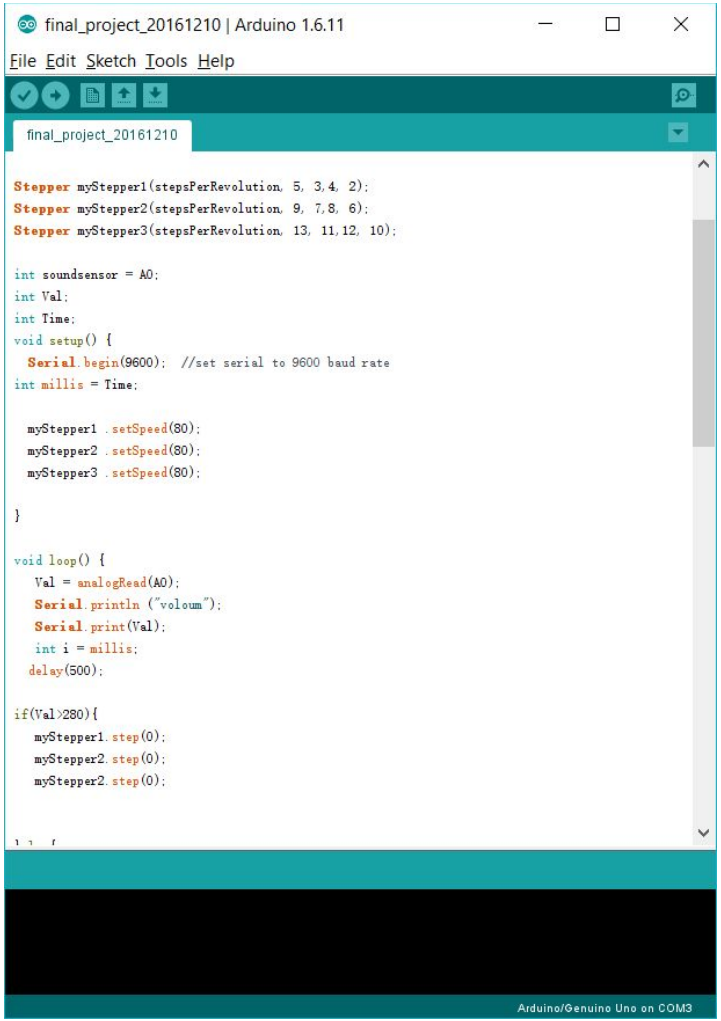


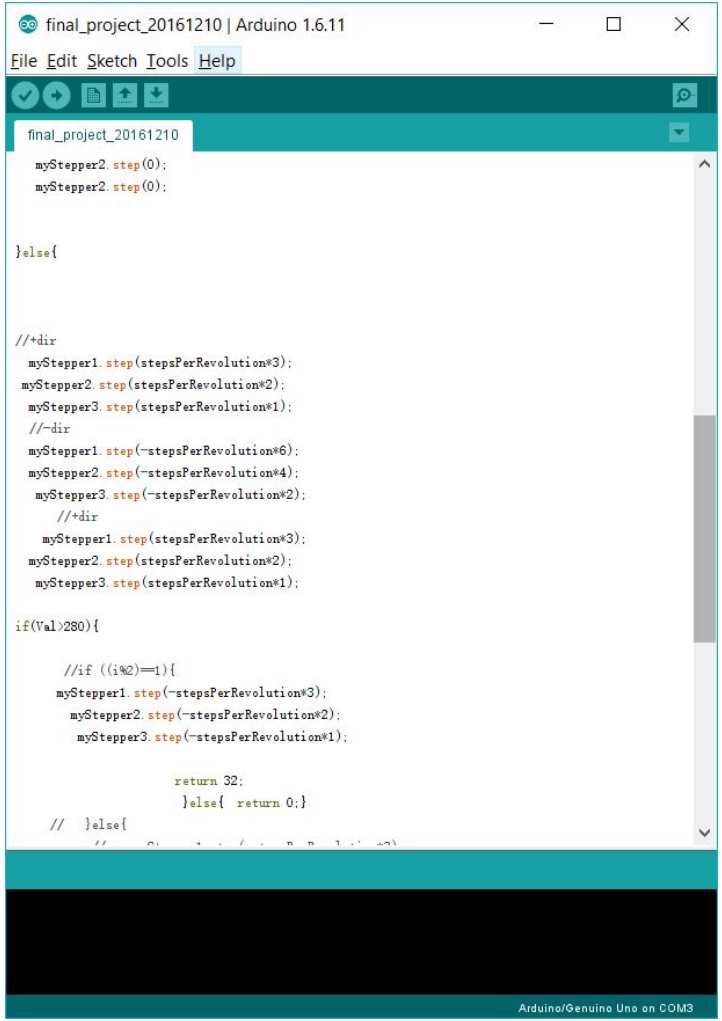
Sound Sensor（receiver）

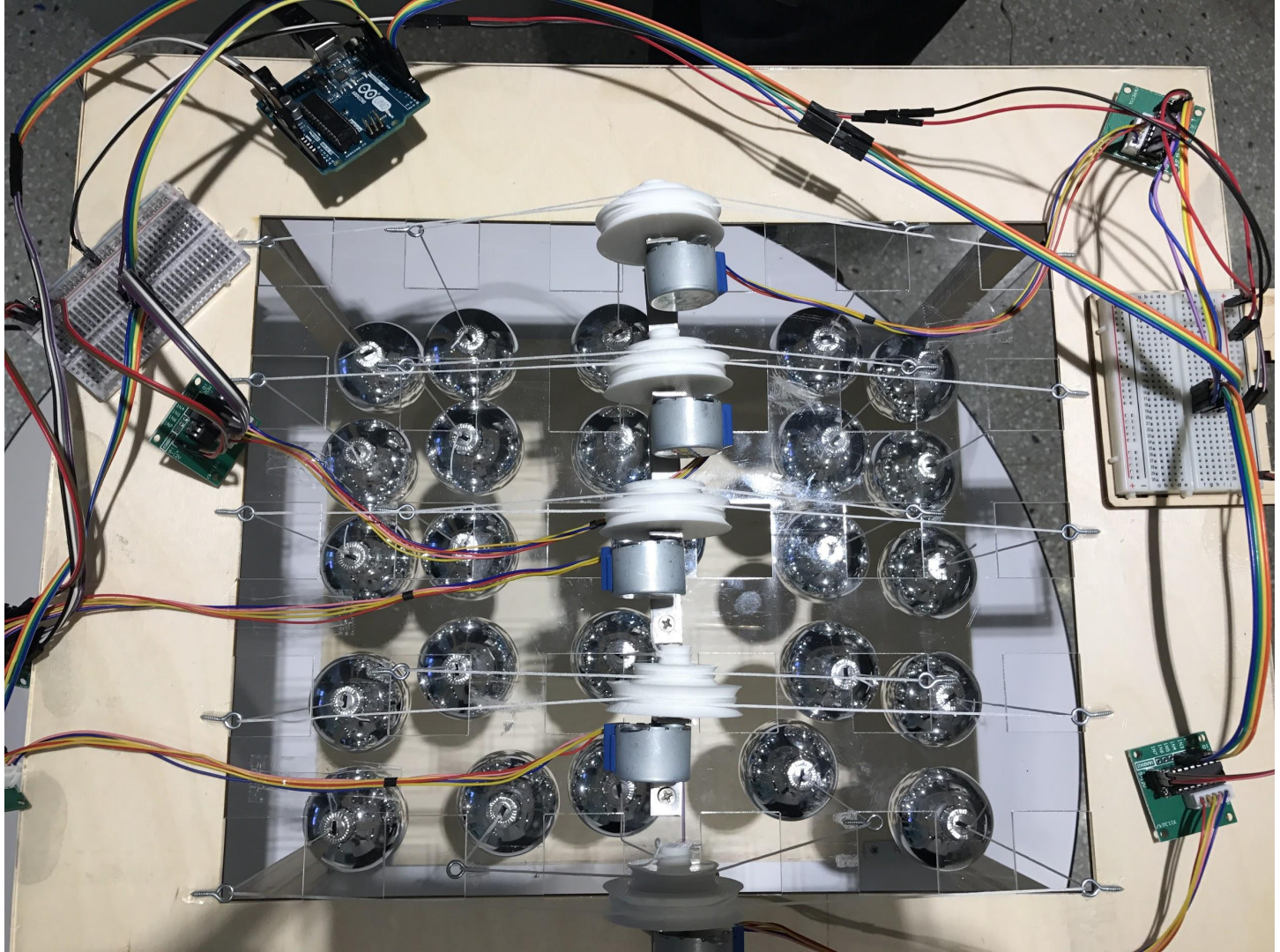
Step Motor

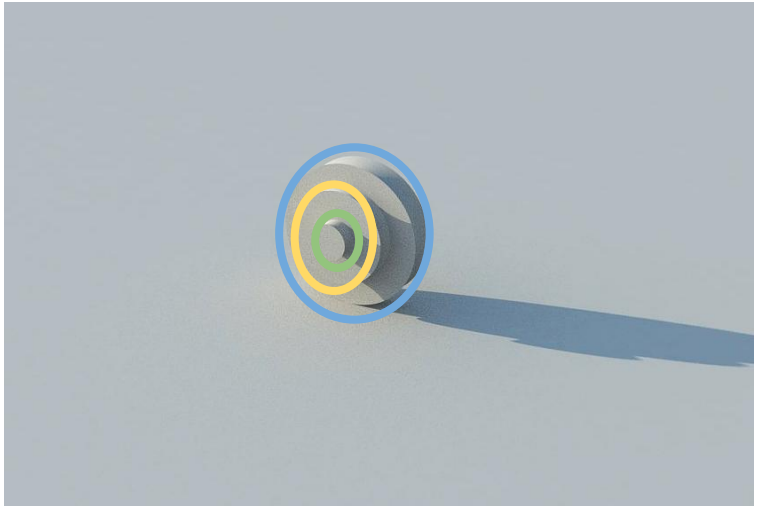
Triple Pulley

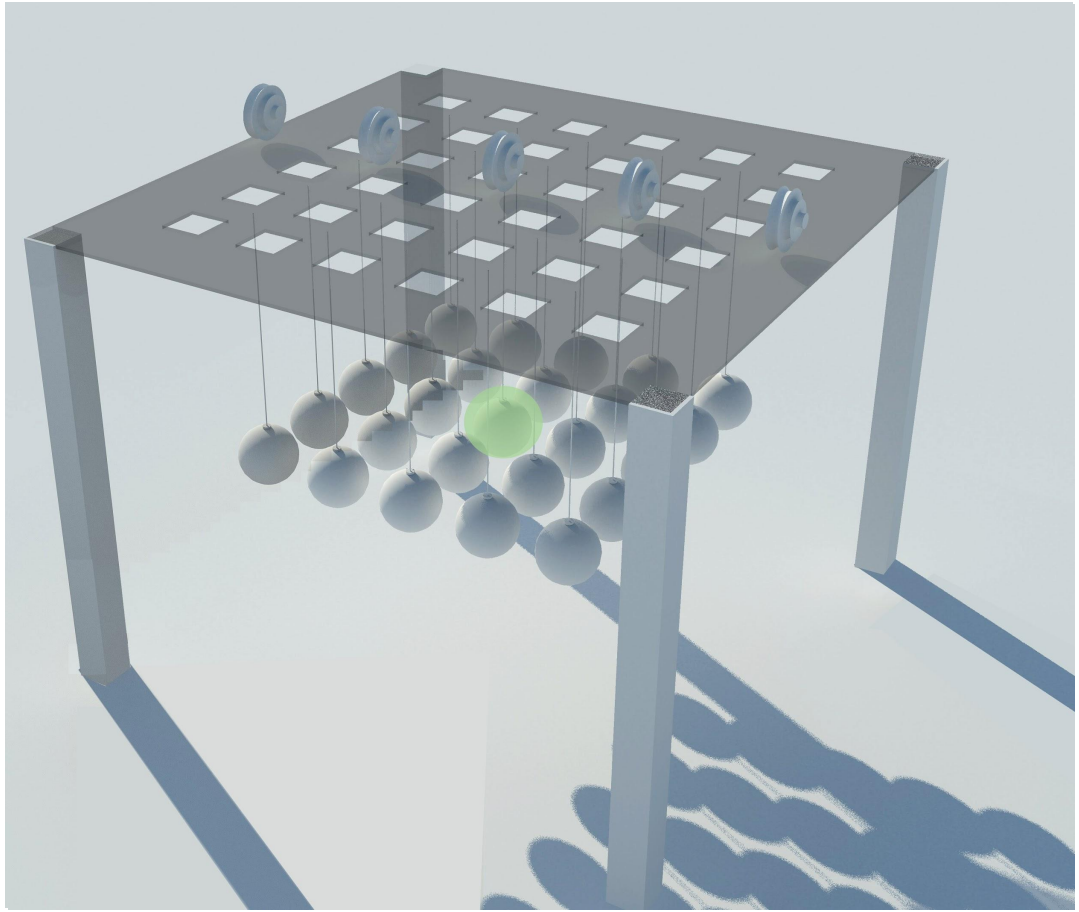
Sound


final_project_20161210 | Arduino 1.6.11
File Edit Sketch Tools Help
final_project_20161210
Stepper myStepper1(stepsPerRevolution, 5, 3,4, 2);
Stepper myStepper2(stepsPerRevolution, 9, 7,8, 6);
Stepper myStepper3(stepsPerRevolution, 13, 11,12, 10);
int soundsensor = A0;
int Val;
int Time;
void setup() {
Serial.begin(9600); //set serial to 9600 baud rate
int millis = Time;
myStepper1 .setSpeed(80);
myStepper2 .setSpeed(80);
myStepper3 .setSpeed(80);
}
void loop() {
Val = analogRead(A0);
Serial.println ("voloum");
Serial.print(Val);
int i = millis;
delay(500);
if(Val>280){
myStepper1.step(0);
myStepper2.step(0);
myStepper2.step(0);
Arduino/Genuino Uno on COM3


final_project_20161210 | Arduino 1.6.11
File Edit Sketch Tools Help
final_project_20161210
myStepper2.step(0);
myStepper2.step(0);
}else{
//+dir
myStepper1.step(stepsPerRevolution*3);
myStepper2.step(stepsPerRevolution*2);
myStepper3.step(stepsPerRevolution*1);
//-dir
myStepper1.step(-stepsPerRevolution*6);
myStepper2.step(-stepsPerRevolution*4);
myStepper3.step(-stepsPerRevolution*2);
//+dir
myStepper1.step(stepsPerRevolution*3);
myStepper2.step(stepsPerRevolution*2);
myStepper3.step(stepsPerRevolution*1);
if(Val>280){
//if ((i%2)==1){
myStepper1.step(-stepsPerRevolution*3);
myStepper2.step(-stepsPerRevolution*2);
myStepper3.step(-stepsPerRevolution*1);
return 32;
}else{ return 0;}
// }else{
Arduino/Genuino Uno on COM3





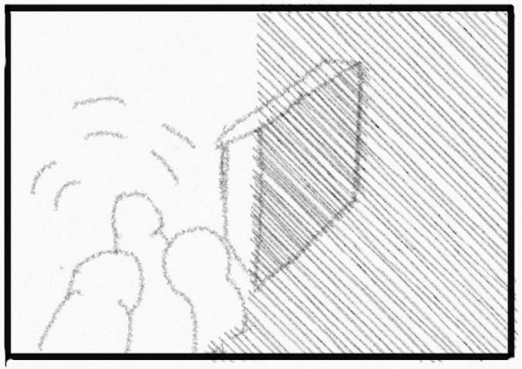


Two Scales

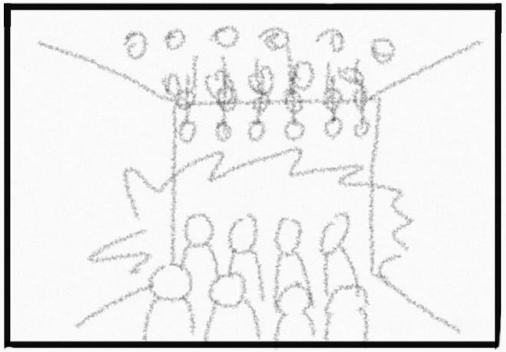
Library

Classroom

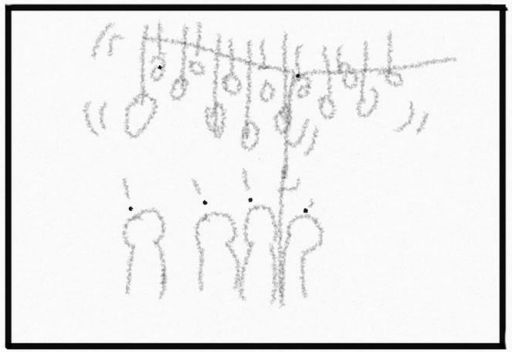
This sphere installation has two scales. When it is in the library, it could detect the noise. When it is hanging in the ceiling, it presented the participants with the opportunity to explore the reaction of their sounds and the surrounding environment.



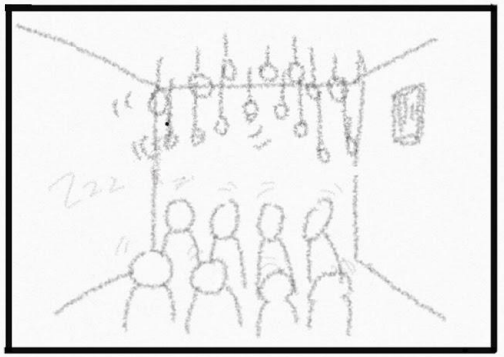
In the library...



When the noise is too loud, the device will detected.



The device will notified the classroom.



It reminds the students to keep the voice down.

Library

Entertainment