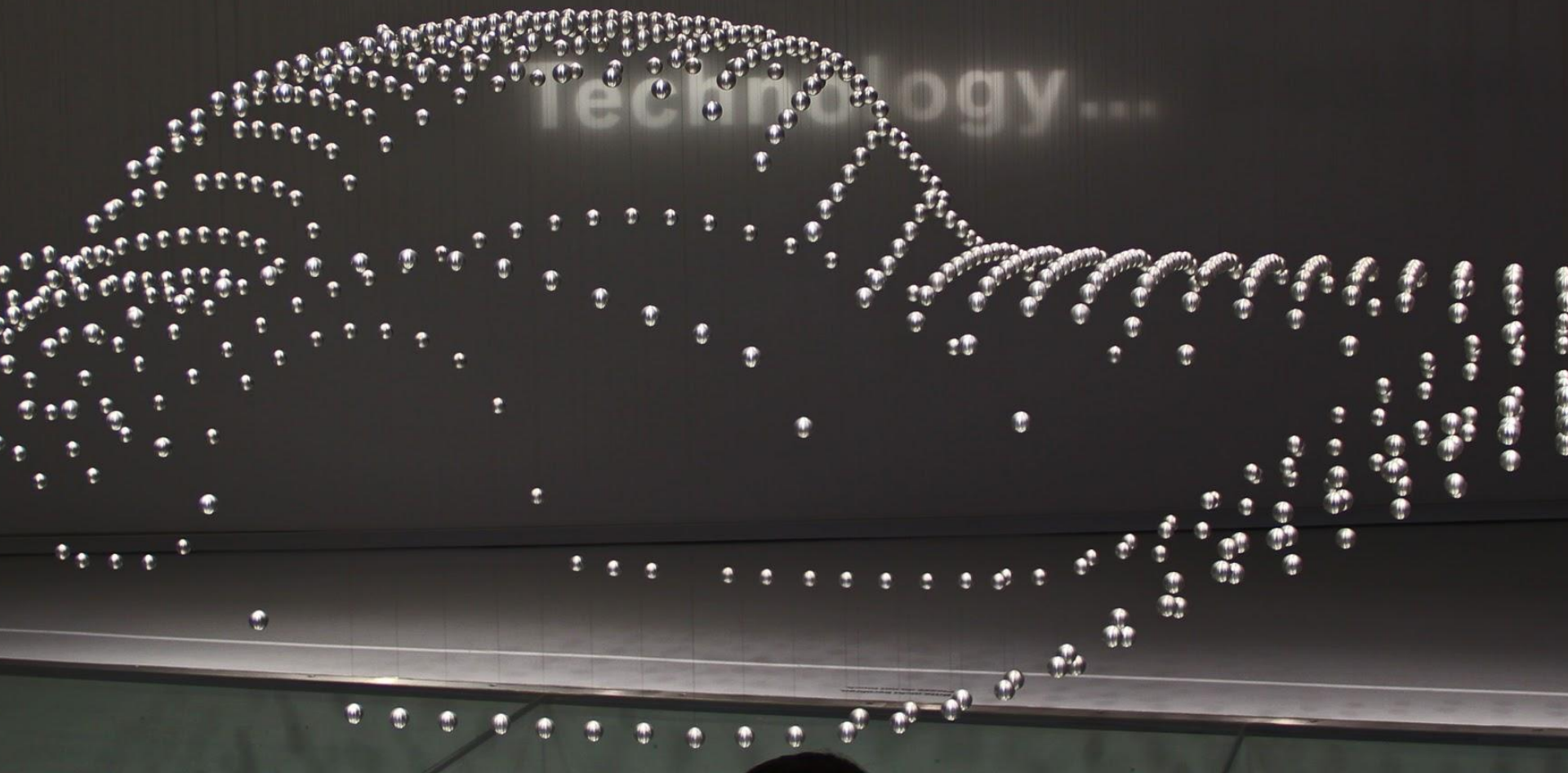


900 Sq.Ft of Silence



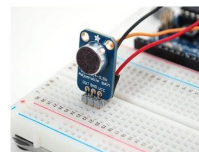
Team: Yumeng Chen
Shen Gao
Yushi Zhao

BMW Kinetic Sculpture | Berlin





Sound



Sound Sensor (receiver)



Step Motor



Triple Pulley



Sound



final_project_20161210 | Arduino 1.6.11

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```
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);

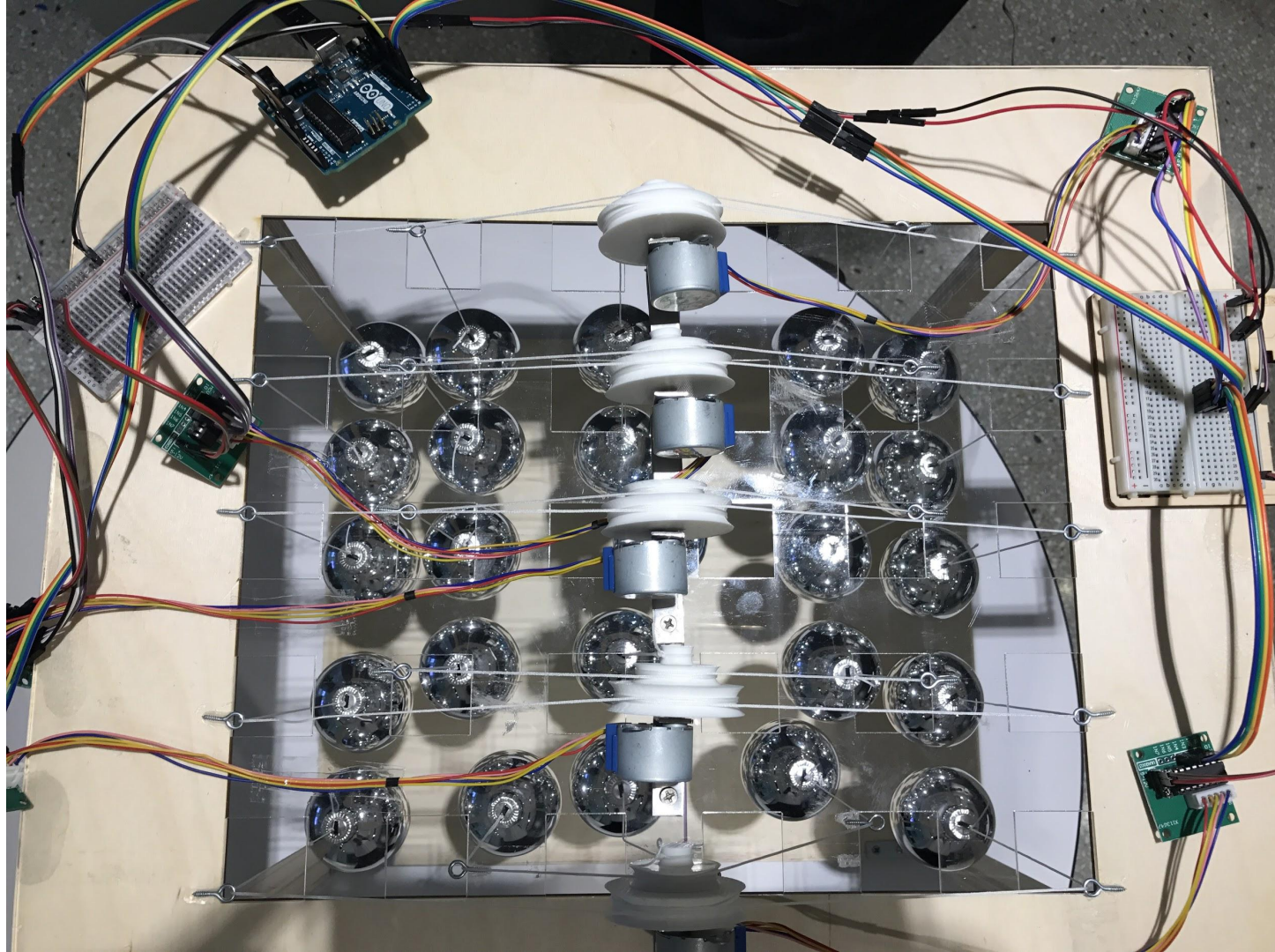
if(Val>280){

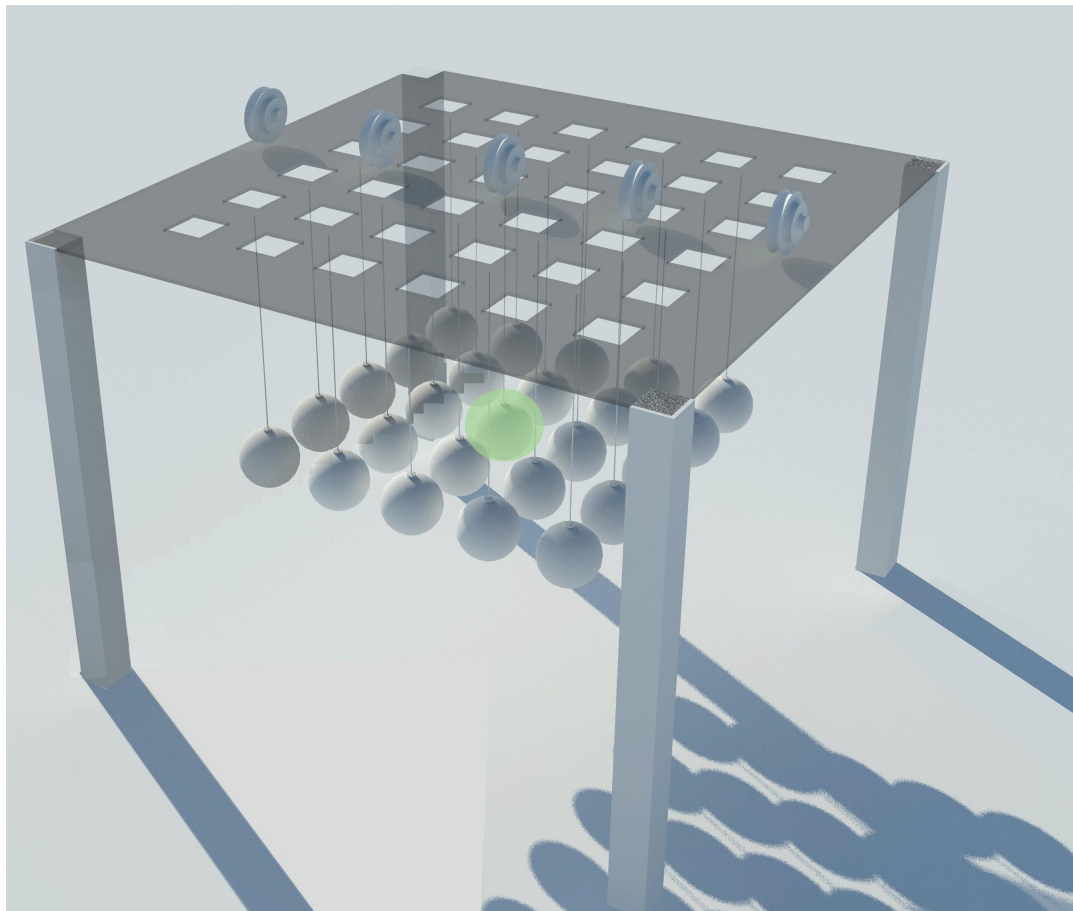
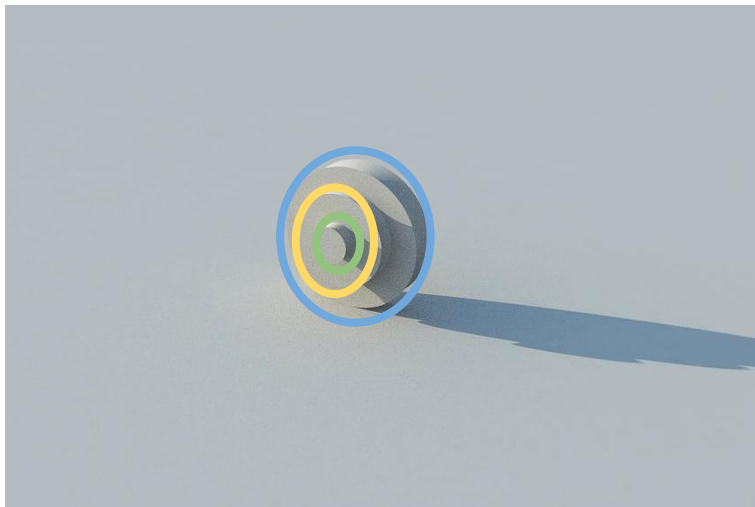
  //if ((i%2)==1){
    myStepper1.step(-stepsPerRevolution*3);
    myStepper2.step(-stepsPerRevolution*2);
    myStepper3.step(-stepsPerRevolution*1);

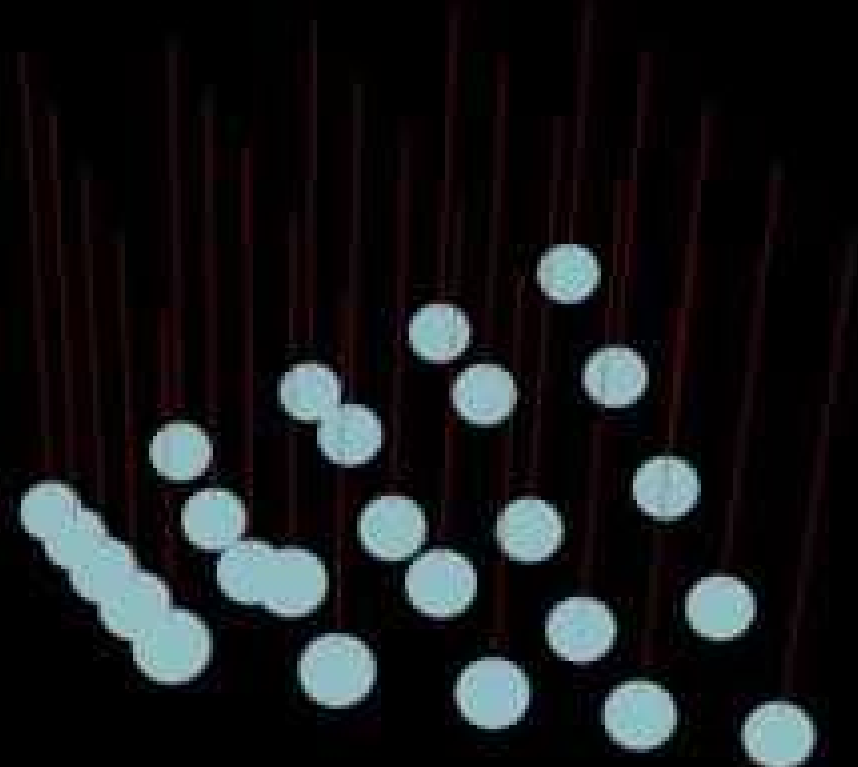
    return 32;
  }else{ return 0;}

  // }else{
```

Arduino/Genuino Uno on COM3







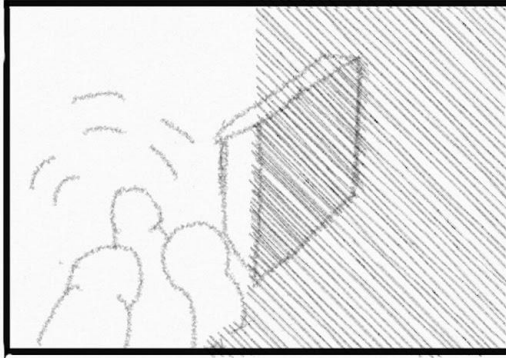


Two Scales

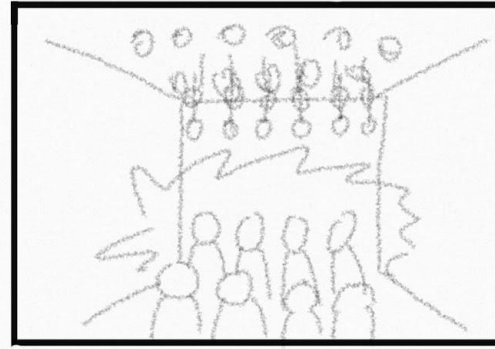
Library

Classroom

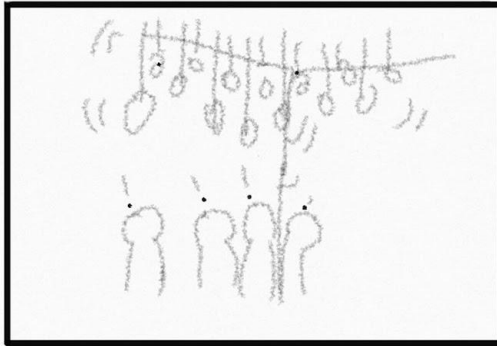
This sphere installation has two scales. When it is in the library, it could detect the noise. When it is hanging in the ceiling, it presented the participants with the opportunity to explore the reaction of their sounds and the surrounding environment.



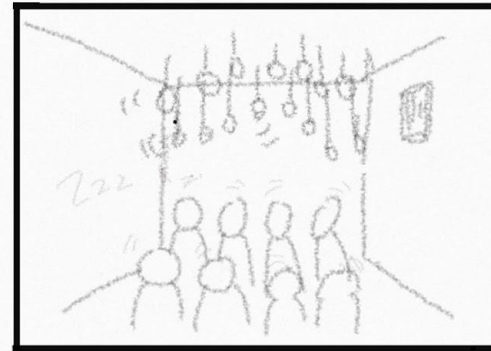
In the library...



**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

