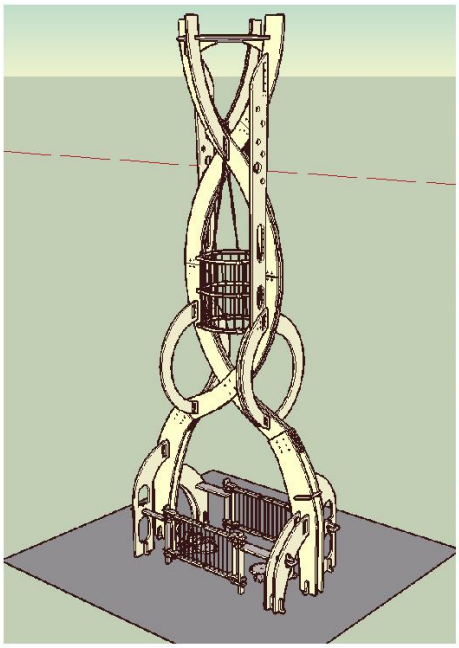
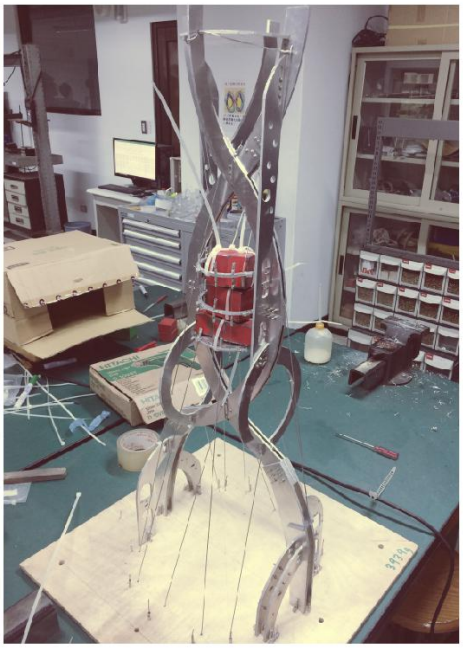
逃射陷阱

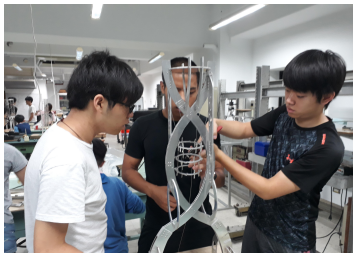


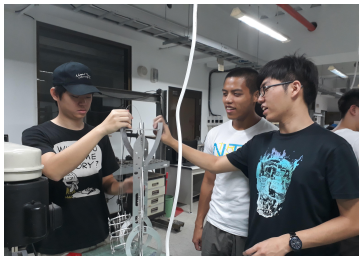


設計概念

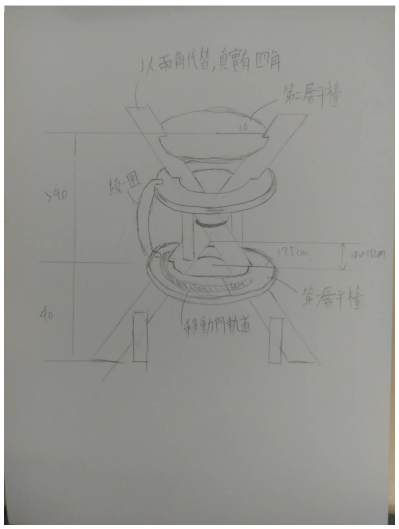
我們的設計理念來自鳥籠的意象，頂部與底部的結構象徵頂天立地的支撐著這個世界，但事實上這穩定運轉的世界是建立在被鳥籠束縛的心靈上，有志難伸，有理想卻被困住而插翅難飛，只能選擇別人決定好的道路，但這真的是我們想要的嗎?或許我們還有別的選擇。

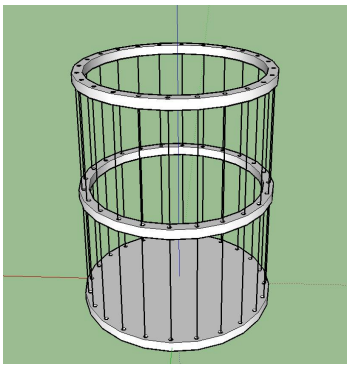
逃，出社會的枷鎖；逃，離世界的喧囂；逃，出佈滿危險的真實陷阱。

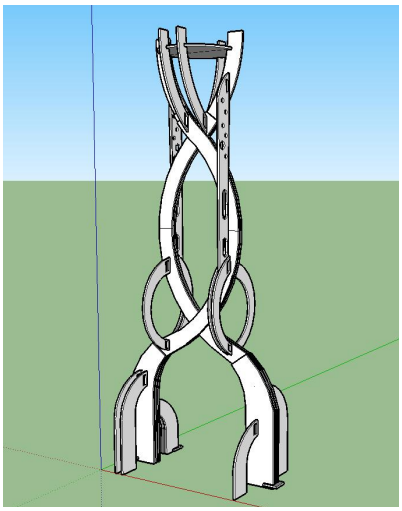




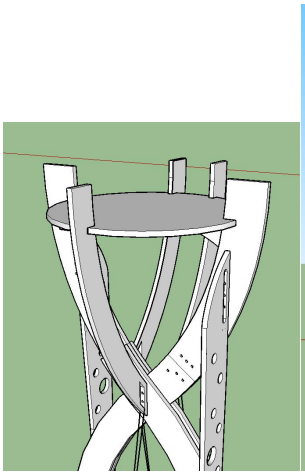
手繪設計草圖

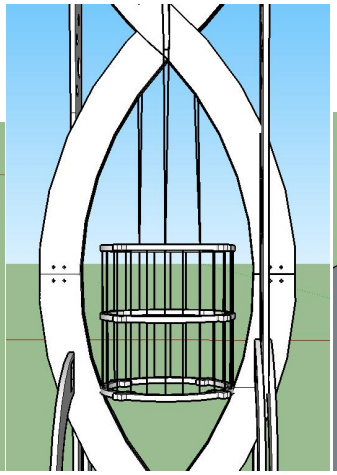


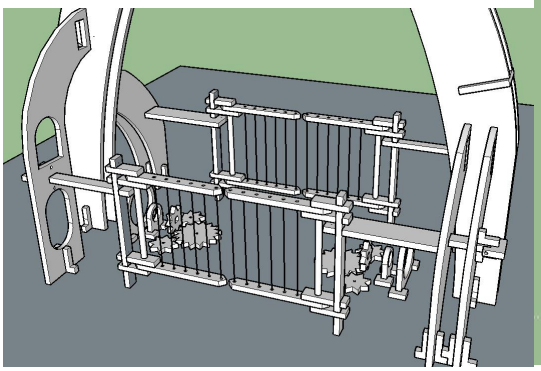


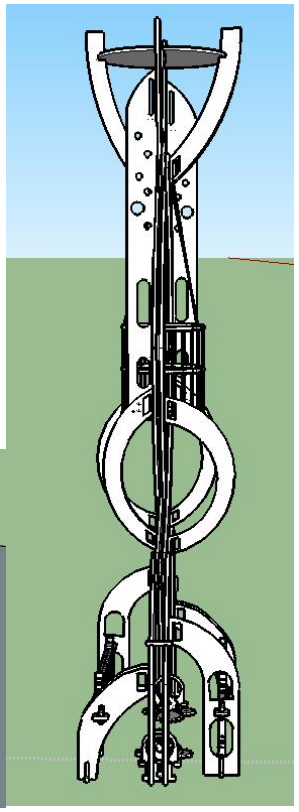


3D電腦設計圖

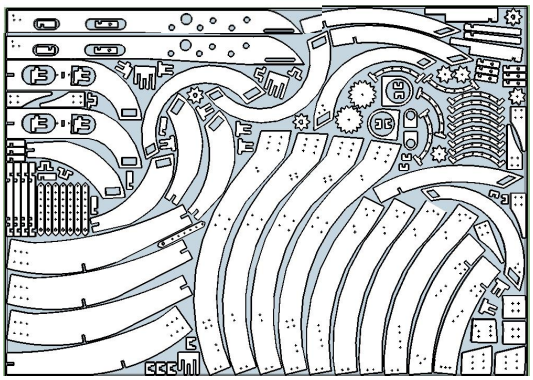


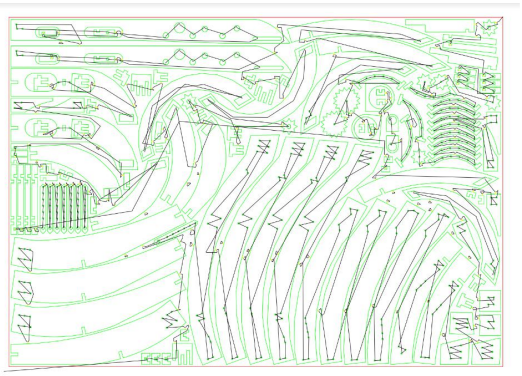




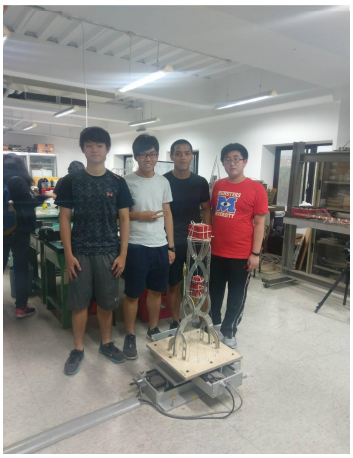


組裝平面圖

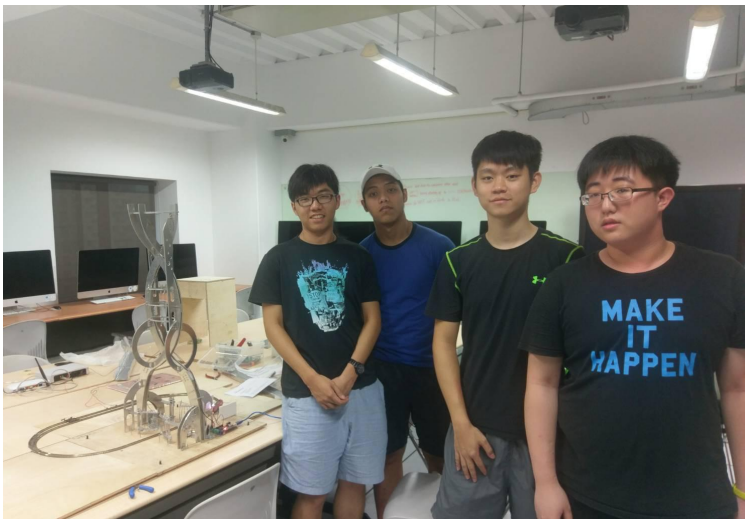




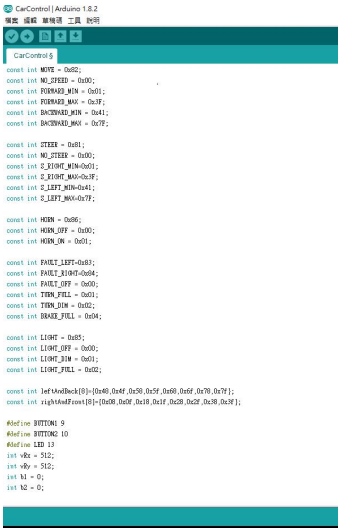
振動台耐震測試



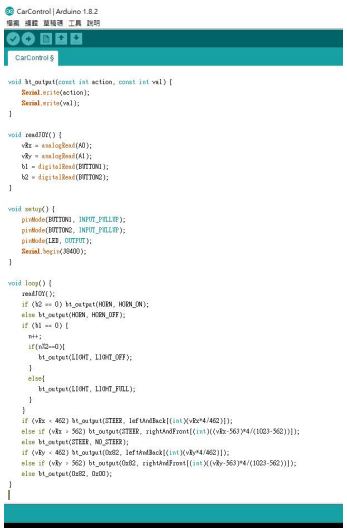
自動控制測試



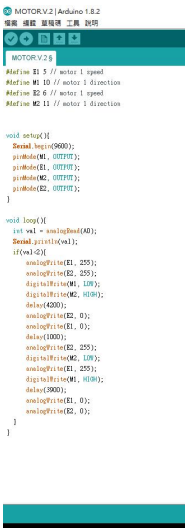
搖控車程式設計



```
CarControl | Arduino 1.8.2
檔案 編輯 草稿碼 工具 說明

CarControl §

const int MOVE = 0x02;
const int NO_SPEED = 0x00;
const int FORWARD_MIN = 0x01;
const int FORWARD_MAX = 0x3F;
const int BACKWARD_MIN = 0x41;
const int BACKWARD_MAX = 0x7F;

const int STEER = 0x81;
const int NO_STEER = 0x00;
const int S_RIGHT_MIN=0x01;
const int S_RIGHT_MAX=0x3F;
const int S_LEFT_MIN=0x41;
const int S_LEFT_MAX=0x7F;

const int HORN = 0x86;
const int HORN_OFF = 0x00;
const int HORN_ON = 0x01;

const int FAULT_LEFT=0x83;
const int FAULT_RIGHT=0x84;
const int FAULT_OFF = 0x00;
const int TURN_FULL = 0x01;
const int TURN_DIM = 0x02;
const int BRAKE_FULL = 0x04;

const int LIGHT = 0x85;
const int LIGHT_OFF = 0x00;
const int LIGHT_DIM = 0x01;
const int LIGHT_FULL = 0x02;

const int leftAndBack[8]={0x40,0x4f,0x50,0x5f,0x60,0x6f,0x70,0x7f};
const int rightAndFront[8]={0x00,0x0f,0x10,0x1f,0x20,0x2f,0x30,0x3f};

#define BUTTON1 9
#define BUTTON2 10
#define LED 13
int vRx = 512;
int vRy = 512;
int b1 = 0;
int b2 = 0;
```



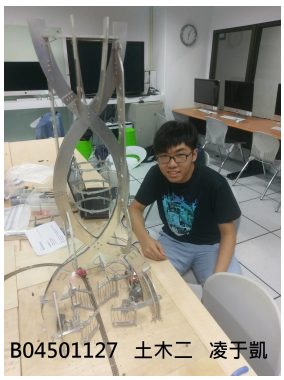
```
CarControl | Arduino 1.8.2
檔案 編輯 草稿碼 工具 說明

CarControl §

void bt_output(const int action, const int val) {
    Serial.write(action);
    Serial.write(val);
}

void readJOY() {
    vRx = analogRead(A0);
    vRy = analogRead(A1);
    b1 = digitalRead(BUTTON1);
    b2 = digitalRead(BUTTON2);
}

void setup() {
    pinMode(BUTTON1, INPUT_PULLUP);
    pinMode(BUTTON2, INPUT_PULLUP);
    pinMode(LED, OUTPUT);
    Serial.begin(38400);
}

void loop() {
    readJOY();
    if (b2 == 0) bt_output(HORN, HORN_ON);
    else bt_output(HORN, HORN_OFF);
    if (b1 == 0) {
      n++;
      if(n%2==0){
        bt_output(LIGHT, LIGHT_OFF);
      }
      else{
        bt_output(LIGHT, LIGHT_FULL);
      }
    }
    if (vRx < 462) bt_output(STEER, leftAndBack[(int)(vRx*4/462)]);
    else if (vRx > 562) bt_output(STEER, rightAndFront[(int)((vRx-563)*4/(1023-562))]);
    else bt_output(STEER, NO_STEER);
    if (vRy < 462) bt_output(0x82, leftAndBack[(int)(vRy*4/462)]);
    else if (vRy > 562) bt_output(0x82, rightAndFront[(int)((vRy-563)*4/(1023-562))]);
    else bt_output(0x82, 0x00);
}
```

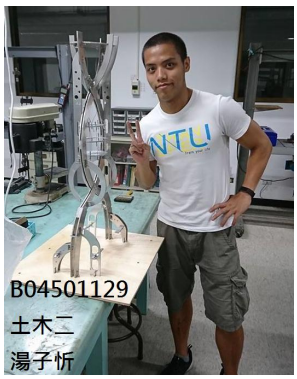


```
MOTOR_V_2 | Arduino 1.8.2
檔案 編輯 草稿碼 工具 說明

MOTOR_V_2 §

#define E1 5 // motor 1 speed
#define M1 10 // motor 1 direction
#define E2 6 // motor 1 speed
#define M2 11 // motor 1 direction


void setup(){
  Serial.begin(9600);
  pinMode(M1, OUTPUT);
  pinMode(E1, OUTPUT);
  pinMode(M2, OUTPUT);
  pinMode(E2, OUTPUT);
}

void loop(){
  int val = analogRead(A0);
  Serial.println(val);
  if(val-2){
      analogWrite(E1, 255);
      analogWrite(E2, 255);
      digitalWrite(M1, LOW);
      digitalWrite(M2, HIGH);
      delay(4200);
      analogWrite(E2, 0);
      analogWrite(E1, 0);
      delay(1000);
      analogWrite(E2, 255);
      digitalWrite(M2, LOW);
      analogWrite(E1, 255);
      digitalWrite(M1, HIGH);
      delay(3900);
      analogWrite(E1, 0);
      analogWrite(E2, 0);
  }
}
```

作品完成圖

成員名單





B05501033

土木一

劉品廷