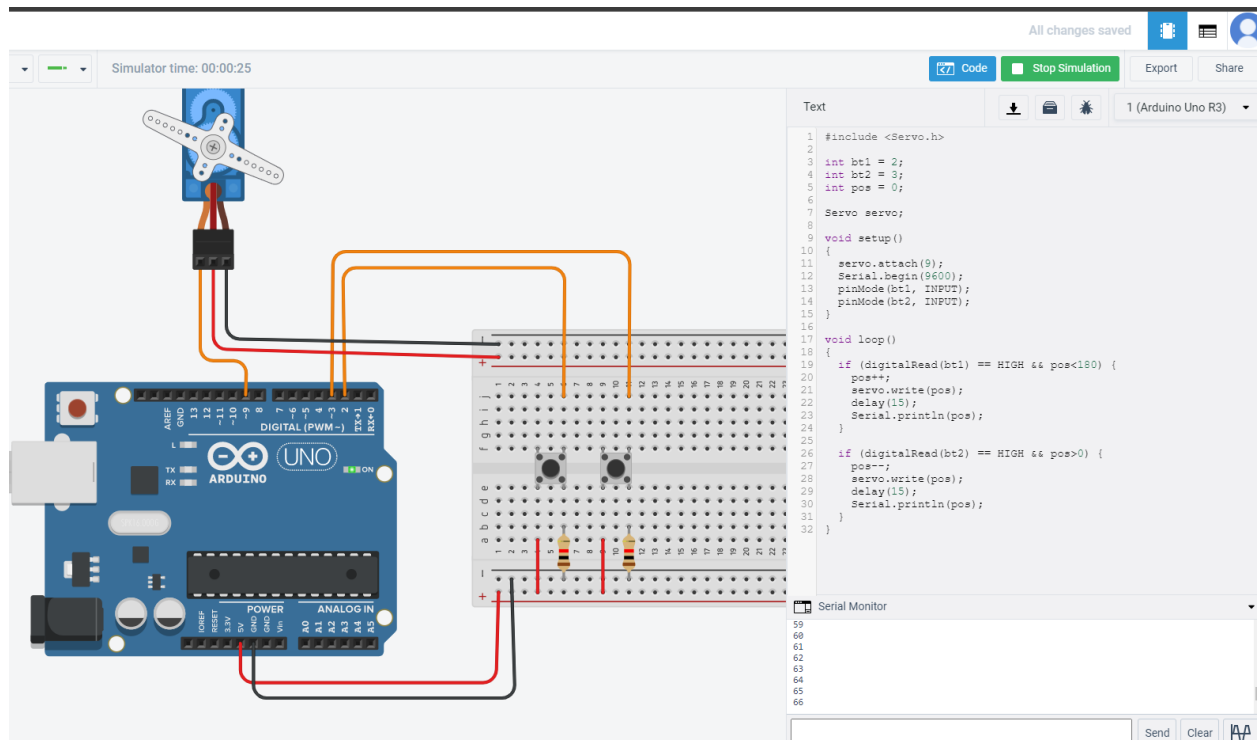


## Exercise 1 rory lange



211.ino

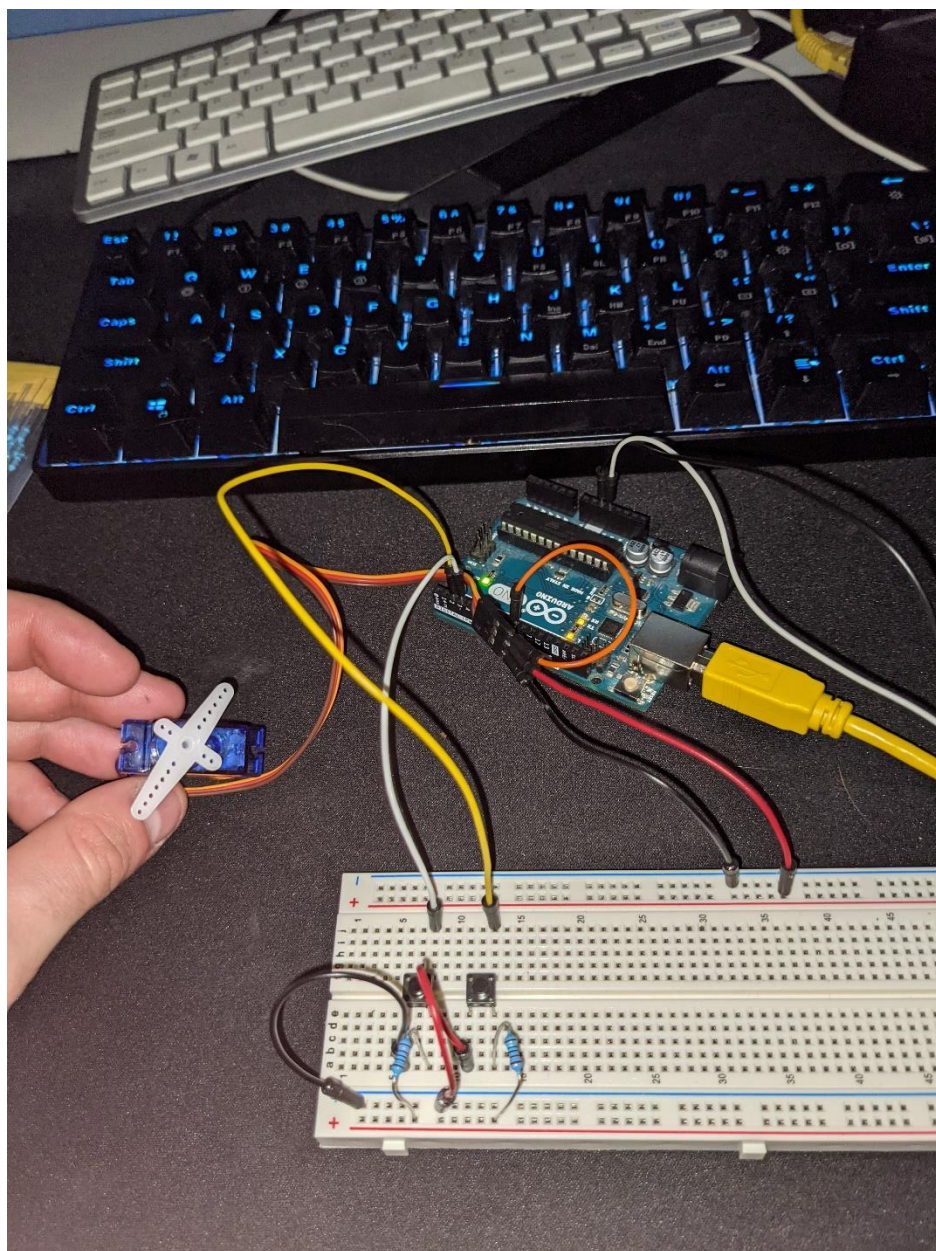
```
4 int bt2 = 3;
5 int pos = 0;
6
7 Servo servo;
8
9 void setup()
10 {
11     servo.attach(9);
12     Serial.begin(9600);
13     pinMode(bt1, INPUT);
14     pinMode(bt2, INPUT);
15 }
16
17 void loop()
18 {
19     if (digitalRead(bt1) == HIGH && pos<180) {
20         pos++;
21         servo.write(pos);
22         delay(15);
23         Serial.println(pos);
24     }
25
26     if (digitalRead(bt2) == HIGH && pos>0) {
27         pos--;
28         servo.write(pos);
29         delay(15);
30         Serial.println(pos);
31     }
32 }
```

Output Serial Monitor x

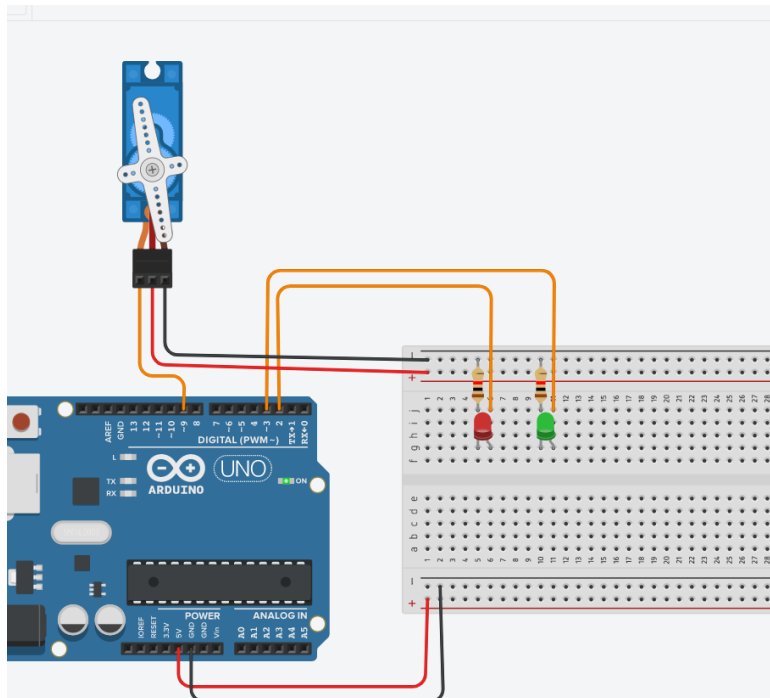
Message (Ctrl+Enter to send message to 'Arduino Uno' on 'COM3')

New Line 9600 baud

Unable to watch for file changes in this large workspace. Please follow the instructions link to resolve this issue. Instructions



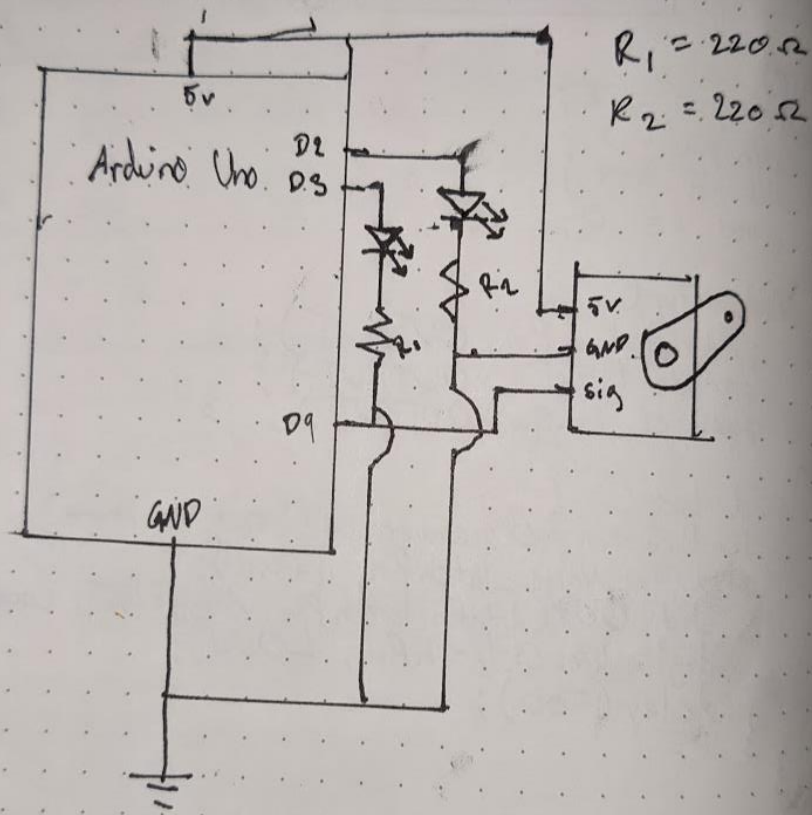
## Exercise 2



```
Text
1 #include <Servo.h>
2
3 int led1 = 2; //red
4 int led2 = 3; //green
5
6
7 Servo servo;
8
9 void setup()
10 {
11   servo.attach(9);
12   pinMode(led1, OUTPUT);
13   pinMode(led2, OUTPUT);
14 }
15
16 void loop()
17 {
18   servo.write(180);
19   digitalWrite(led1, HIGH);
20   delay(1000);
21   digitalWrite(led1, LOW);
22
23   servo.write(90);
24   delay(1000);
25
26   servo.write(0);
27   digitalWrite(led2, HIGH);
28   delay(1000);
29   digitalWrite(led2, LOW);
30 }
31
```

1 (Arduino Uno R3)

change n in for loop...  
 for(int n=0; n<7; n++) {



Exercise 3

```
213 // START:team
const unsigned int MAX_MEMBERS = 10;
class Team {
  char** _members;
  int _num_members;
  int _positions[MAX_MEMBERS];
public:
  Team(char** members) {
    _members = members;
    _num_members = 0; // <label id="code.motors.num_members_start"/>
    char** member = _members;
    while (*member++)
      _num_members++; // <label id="code.motors.num_members_end"/>
    const int share = 180 / _num_members;
    int pos = share / 2;
    for (int i = 0; i < _num_members; i++) {
      _positions[i] = pos;
      pos += share;
    }
  }
  int get_position(const char* name) const {
    int position = 0;
    for (int i = 0; i < _num_members; i++) {
      if (!strcmp(_members[i], name)) {
        position = _positions[i];
        break;
      }
    }
    return position;
  }
};
// END:team
#include <Servo.h>

Sketch uses 3554 bytes (11%) of program storage space. Maximum is 32256 bytes.
Global variables use 323 bytes (15%) of dynamic memory, leaving 1725 bytes for local variables. Maximum is 2048 bytes.
```

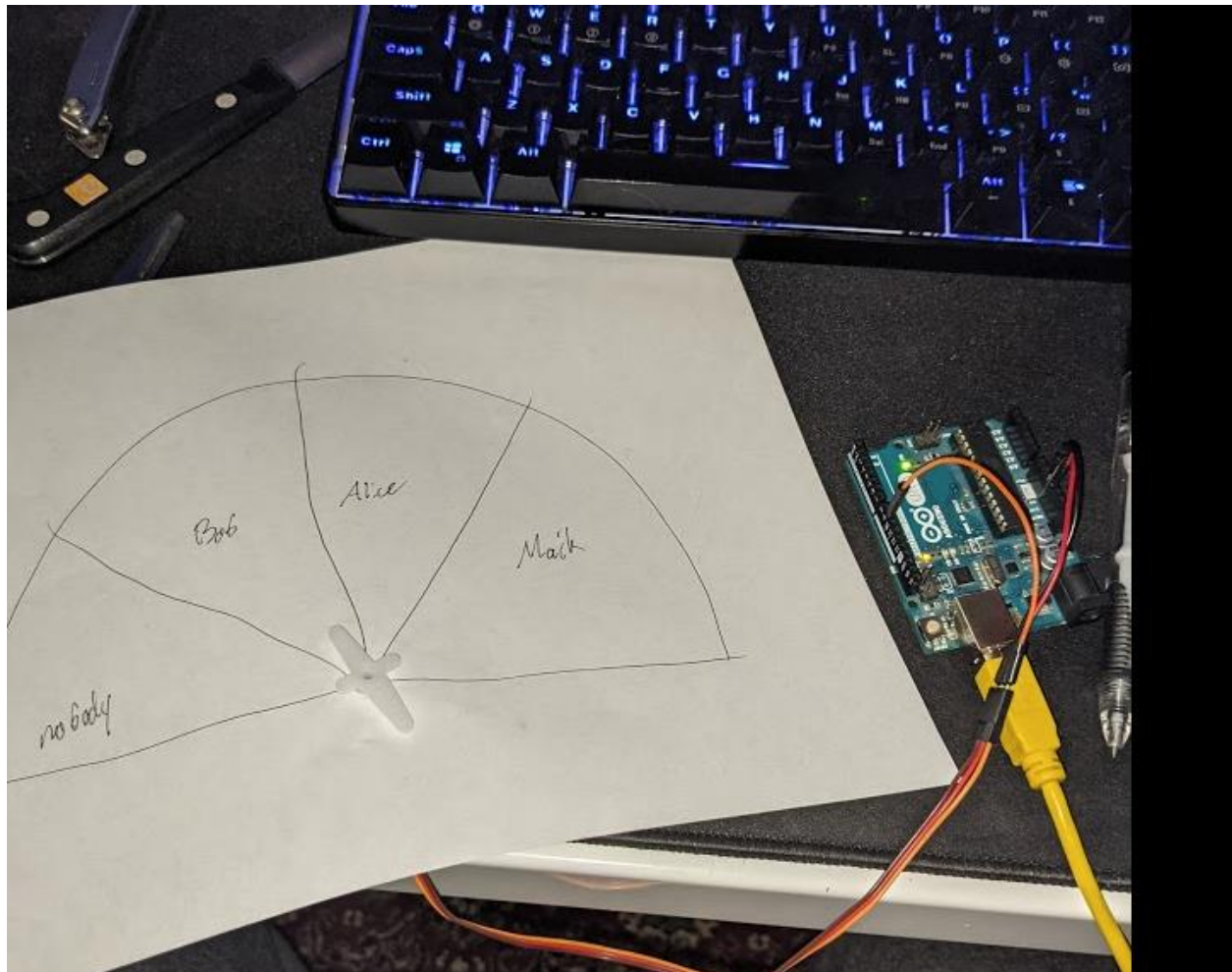
COM3

Send

Bob is to blame.  
Alice is to blame.  
nobody is to blame.  
Maik is to blame.  
Bob is to blame.

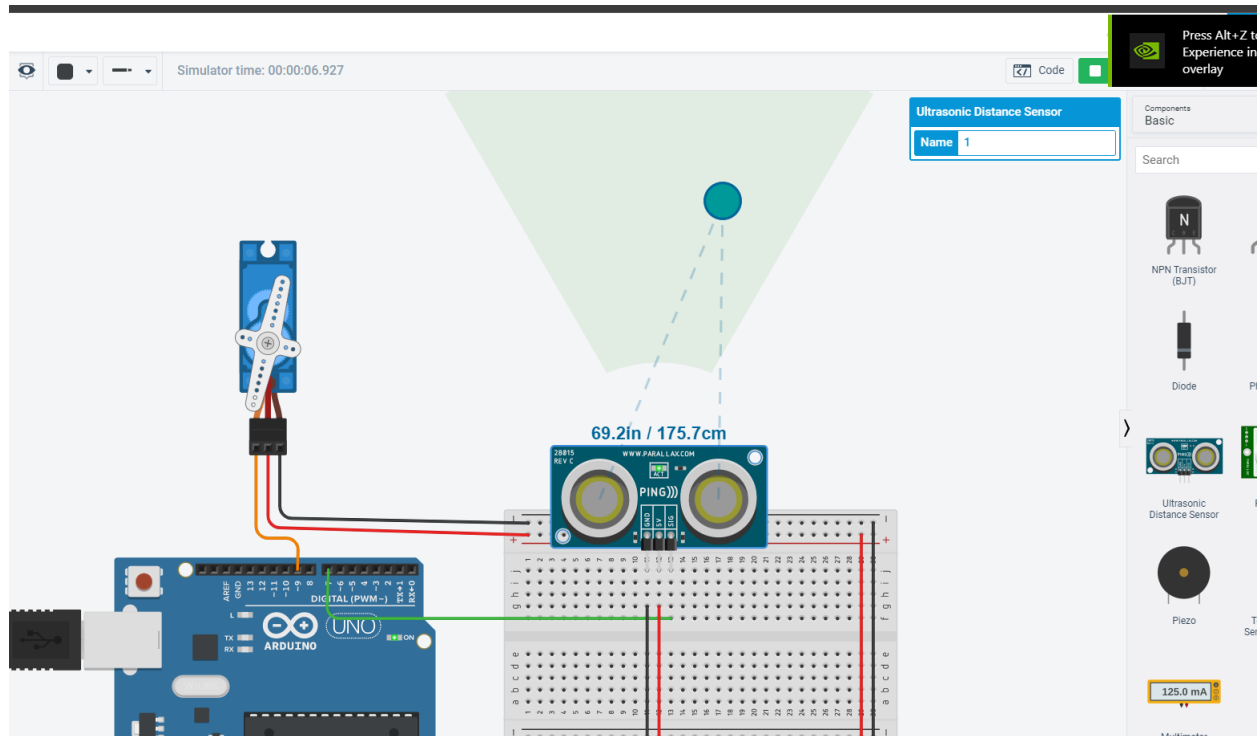
☒ Autoscroll ☐ Show timestamp

Sendline 9600 baud Clear output





## Exercise 4



Exercise 5 servo was upside down so I had to hold it

