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CSE 5410  
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### Lab 3: Servo

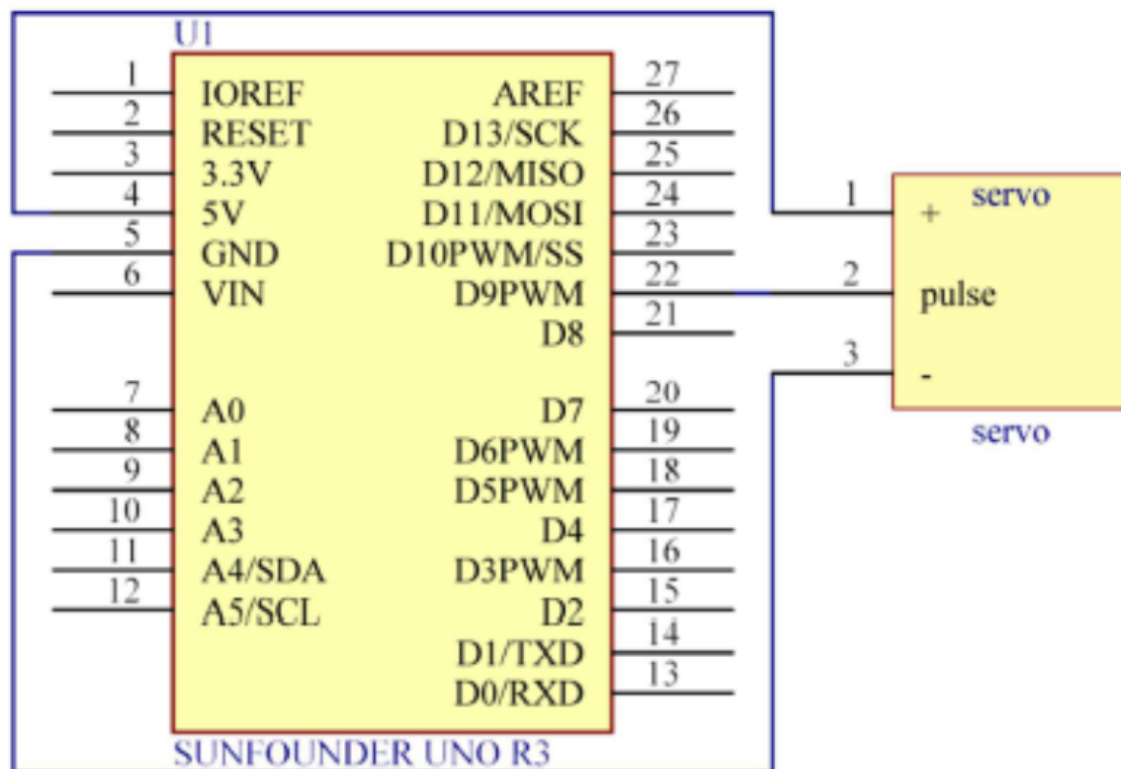
#### Introduction

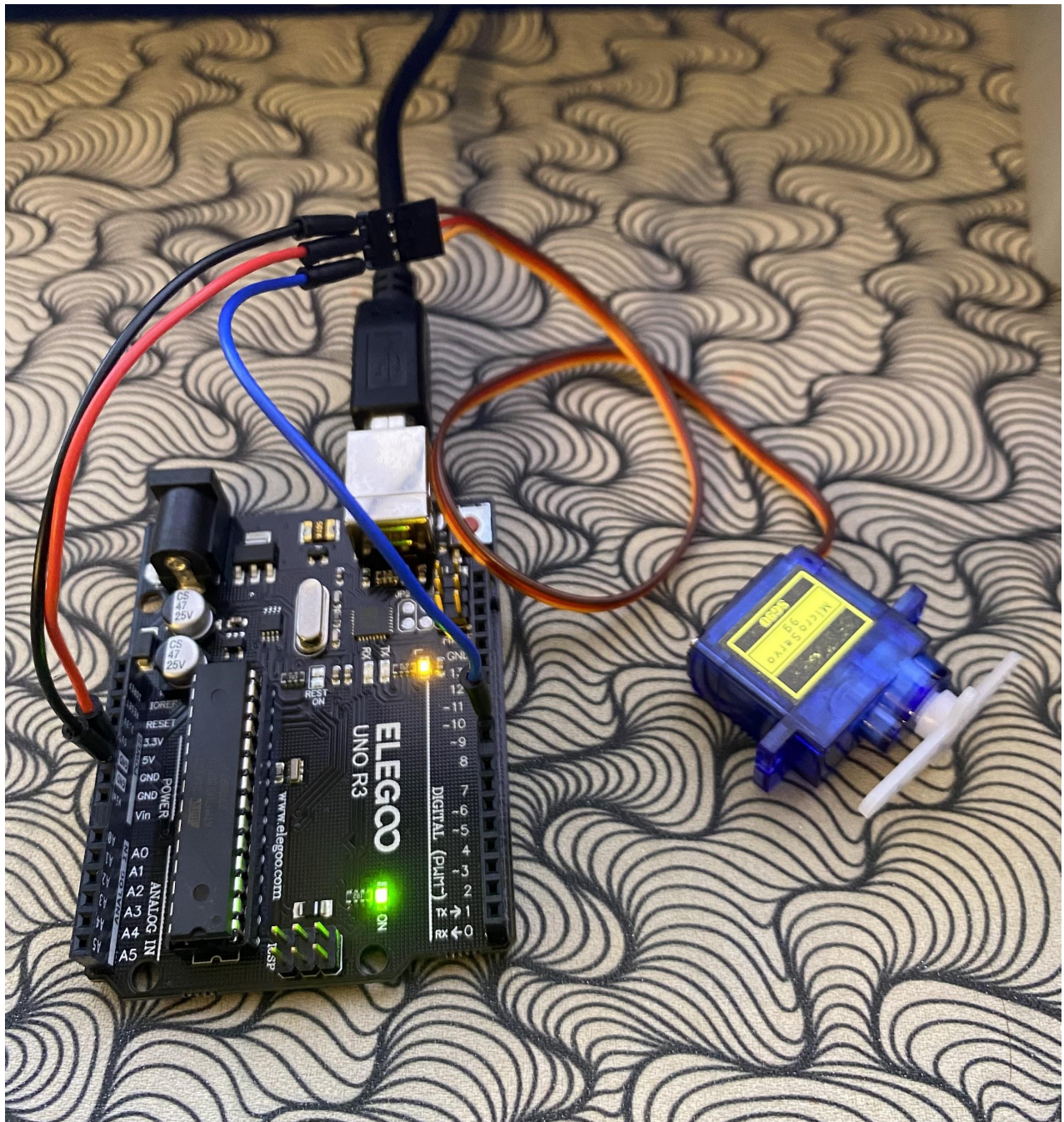
In this experiment, we used the arduino board to rotate a servo module. The servo module can be set to different degree angles which causes rotation. Using arduino IDE software, we can create a code that makes the servo module rotate periodically by setting different degree angles in intervals.

Components list: Arduino uno board, usb cable, servo module, and jumper wires.

#### Experiment

By connecting the components as shown in the picture diagram below we can begin uploading code to the arduino and test the servo module.





## Test

Using the code below we can get the servo to rotate to 30, 60, and 90 degrees then back every 1.5 seconds.

```
#include <Servo.h>
```

```
Servo myservo;//create servo object to control a servo
```

```
/******
```

```
void setup()
```

```
{
```

```
  myservo.attach(9);//attaches the servo on pin 9 to servo object
```

```
  myservo.write(0);//back to 0 degrees
```

```
  delay(1500);//wait for 1.5 seconds
```

```
}
```

```
/******
```

```
void loop()
```

```
{
```

```
  myservo.write(30);//goes to 30 degrees
```

```
  delay(1500);//wait for 1.5 seconds
```

```
  myservo.write(60);//goes to 60 degrees
```

```
  delay(1500);//wait for 1.5 seconds
```

```
  myservo.write(90);//goes to 90 degrees
```

```
  delay(1500);//wait for 1.5 seconds
```

```
  myservo.write(60);//back to 60 degrees
```

```
  delay(1500);//wait for 1.5 seconds
```

```
  myservo.write(30);//back to 30 degrees
```

```
  delay(1500);//wait for 1.5 seconds
```

```
  myservo.write(0);//back to 0 degrees
```

```
  delay(1500);//wait for a 1.5 seconds
```

```
}
```

```
/******
```

0 degrees

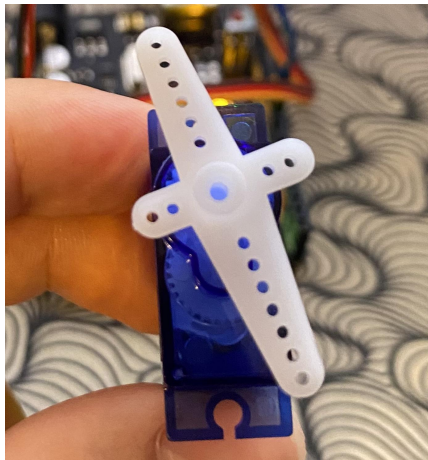




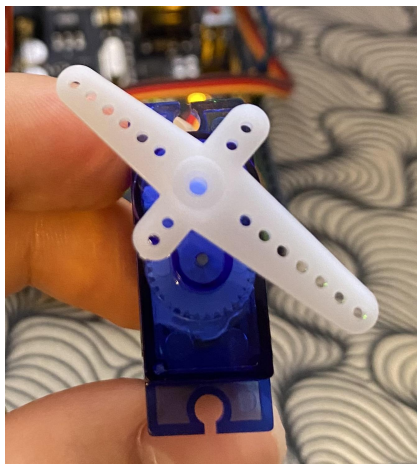
30 degrees



60 degrees



90 degrees



60 degrees



30 degrees



0 degrees



## **Conclusion**

In this lab, I learned about the servo module and its uses. Using the arduino IDE, we can rotate the servo clockwise or counter clockwise by specifying a degree angle to turn to in code.

Group 4 Topic: Traveling Robot