

Describe the errors you've encountered while working on this assignment. What caused the error and how do you overcome the error?

Error #1: In the 'Turn' class, multiple errors stating "Unhandled exception type PhidgetException"

```
//Connect to wireless rover
Net.addServer("", "192.168.100.1", 5661, "", 0);

//Create
DCMotor leftMotors = new DCMotor();
DCMotor rightMotors = new DCMotor();

//Address
leftMotors.setChannel(0);
rightMotors.setChannel(1);

//Open
leftMotors.open(5000);
rightMotors.open(5000);

//Turn in one direction
leftMotors.setTargetVelocity(1);
rightMotors.setTargetVelocity(-1);

//Wait for 2 second
Thread.sleep(2000);

//Stop motors
leftMotors.setTargetVelocity(0);
rightMotors.setTargetVelocity(0);
```

Unhandled exception type PhidgetException  
2 quick fixes available:  
Jg Add throws declaration  
Jg Surround with try/catch

Cause: A throw declaration has not been added after the public main method

```
public static void main(String[] args){}
```

Solution: Add a throw declaration for 'Exception'

```
public static void main(String[] args) throws Exception {
    //Connect to wireless rover
    Net.addServer("", "192.168.100.1", 5661, "", 0);

    //Create
    DCMotor leftMotors = new DCMotor();
    DCMotor rightMotors = new DCMotor();

    //Address
    leftMotors.setChannel(0);
    rightMotors.setChannel(1);

    //Open
    leftMotors.open(5000);
    rightMotors.open(5000);

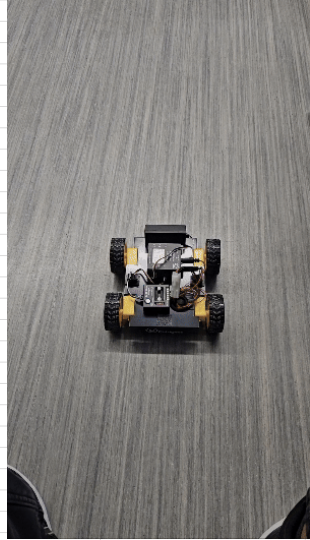
    //Turn in one direction
    leftMotors.setTargetVelocity(1);
    rightMotors.setTargetVelocity(-1);

    //Wait for 2 second
    Thread.sleep(2000);

    //Stop motors
    leftMotors.setTargetVelocity(0);
    rightMotors.setTargetVelocity(0);
}
```

Bug #1:

When testing the Turn2 class, the rover does not spin a proper 180°



Cause: The duration of the turn is too long

```
//Turn 180°
leftMotors.setTargetVelocity(1);
rightMotors.setTargetVelocity(-1);

//Wait for 1 second
Thread.sleep(1000);
```

Solution: Shorten the duration of the turn from 1 second to 725 milliseconds

```
//Turn 180°
leftMotors.setTargetVelocity(1);
rightMotors.setTargetVelocity(-1);

//Wait for 725
Thread.sleep(725);
```

