

Lab Report

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CMSC143 Lab 1

1. What COM port did you use to connect to your robot?: I used COM5 in class, and COM7 when I worked on the lab outside of class
2. What was the name of your robot? What did you name it?: I named it "littlerobot". The previous name was Scribblerbot
3. What battery voltage does your robot report?: 7.39 volts

motors(1, 1)	The scribbler moves forward at full speed and does not stop unless you type in the "stop()" command
motors(0, 0)	this command stops the motors. The robot does not move
motors(.8, .8)	The robot, again, moves forward and does not stop; however, it is slightly slower than its full speed
motors(-1, -1)	The robot moves backward at full speed and does not stop
motors(-.75, -.75)	The robot moves backward at a slightly slower speed than its full speed and does not stop
motors(-1, 0)	The robot moves counter-clockwise in a circle and does not stop moving
motors(-.75, .3)	turns in a counter-clockwise arc

```
def stopWheels():  
    motors(0, 0)
```

```
def goForward():  
    motors(1, 1)
```

```
def goBackward():  
    motors(-1, -1)
```

```
def spinLeft():  
    motors(-1, 1)
```

```
def spinRight():  
    motors(1, -1)
```

Use your robot to draw a square, a five point star, or another shape using (a) the gamepad() and (b) the functions your wrote. Write a paragraph reflecting on the differences between these two approaches:

When using the functions, it took a lot more time because I had to continuously try out different times for how long my scribbler should turn before it made a 90 degree angle. I found it a lot easier to only change the turn time, and to keep everything else consistent. I found this easier because there are more changes in movement to keep track of when you change more variables such as speed and turn time. I found that using the functions I created to be much more precise than using the gamepad. The gamepad was fairly inaccurate compared to the functions I defined. The gamepad is easier since you don't have to program functions (you simply have to press the buttons); however, it is much more dependent on the accuracy of your touch which I found to be very difficult to control my robot precisely with.