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Testing Motor Functions

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Code Used: <https://github.com/napierSLAM/Robot-Mapping/blob/master/Mapping_BUILD/single_motor_test.ino>

A simple Arduino sketch to check which motor is which, are the pins wired correctly, does the motor work, directions etc

**First test:**

Confirm which motor is on pins 10, 9 and 8 and check direction of turn

Test Result:

* Right hand motor turned
* Motor confirmed to be working
* Pins Confirmed 10, 9 and 8
* Motor turned forward
* DC motor connection correct

Conclusion:

Right hand motor on 10, 9 and 8

Wired correctly and working

**Second test:**

Confirm which motor is on pins 5, 6 and 7 and check direction of turn

Test Result:

* Left hand motor turned
* Motor confirmed to be working
* Pins Confirmed
* Pins Confirmed 5, 6 and 7
* Motor turned in reverse
* DC motor in reverse configuration

Conclusion:

Left hand motor on 5, 6 and 7

Working

DC motor wired in reverse, pins need to be reversed

**Third test:**

Confirm the motor on pins 5, 6 and 7 turns in required direction after motor connection reversal

Test Result:

* Motor turned forward
* DC motor connection correct

Conclusion:

Left hand motor moving in forward direction

**Fourth test:**

Confirm both motors move forwards simultaneously

Test Result:

* Both motors turned forward simultaneously

Conclusion:

Motors work forward simultaneously

**Fifth test:**

Confirm right motor moves in reverse

Test Result:

* Right motor moved in reverse

Conclusion:

Right motor works in reverse

**Sixth test:**

Confirm left motor moves in reverse

Test Result:

* left motor moved in reverse

Conclusion:

left motor works in reverse

**Seventh test:**

Confirm both motors move in reverse simultaneously

Test Result:

* Both motors turned in reverse simultaneously

Conclusion:

Motors work in reverse simultaneously