MMC	INPUT EN PWM Left IN Right IN	OUTPUT Oct-1 [1, -1]	INPUT EN PWM Left IN Right IN	OUTPUT Oct-2 [1, 0]	INPUT EN PWM Left IN Right IN	OUTPUT Oct-3 [1, 1]	INPUT EN PWM Left IN Right IN	OUTPUT Oct-4 [0, 1]	INPUT EN PWM Left IN Right IN	OUTPUT Oct-5 [-1, 1]	INPUT EN PWM Left IN Right IN	OUTPUT Oct-6 [-1, 0]	INPUT EN PWM Left IN Right IN	OUTPUT Oct-7 [-1, -1]	INPUT EN PWM Left IN Right IN	OUTPUT Oct-8 [0, -1]
Bits	E P L R	↑ ↓	E P L R	−0 ↑ +0	E P L R	↑ ↑	E P L R	+0 ↑ −0	E P L R	↓ ↑	E P L R	↓ +0 −0	E P L R	↓ ↓	E P L R	−0 ↓ +0
0	0000	√ x		√ x		√ x		√ x		√ x		√ x		√ x		√ x
1	0001	√ x		√ x		√ x		√ x		√ x		√ x		√ x		√ x
2	0010	√ x		√ x		√ x		√ x		√ x		√ x		√ x		√ x
3	0011	√ x		√ x		√ x		√ x		√ x		√ x		√ x		√ x
4	0100	√ x		√ x		√ x		√ x		√ x		√ x		√ x		√ x
5	0101	√ x		√ x		√ x		√ x		√ x		√ x		√ x		√ x
6	0110	√ x		√ x		√ x		√ x		√ x		√ x		√ x		√ x
7	0111	√ x		√ x		√ x		√ x		√ x		√ x		√ x		√ x
8	1000	√ x		√ x		√ x		√ x		√ x		√ x		√ x		√ x
9	1001	√ x		√ x		√ x		√ x		√ x		√ x		√ x		√ x
10	1010	√ x		√ x		√ x		√ x		√ x		√ x		√ x		√ x
11	1011	√ x		√ x		√ x		√ x		√ x		√ x		√ x		√ x
12	1100	√ x		√ x		√ x		√ x		√ x		√ x		√ x		√ x
13	1101	√ x		√ x		√ x		√ x		√ x		√ x		√ x		√ x
14	1110	√ x		√ x		√ x		√ x		√ x		√ x		√ x		√ x
15	1111	√ x		√ x		√ x		√ x		√ x		√ x		√ x		√ x

Do not record data when the joystick is in a neutral position.

While recording data, position joystick in direction shown for both output and also used for input.

*Do these tests first **R**, **F**, **L**, & **B**:*

- **(R) Right Turn**
- **(F) Forward**
- **(L) Left Turn**
- **(B) Backward**

*If the **L**, **F**, **R**, & **B** passes, then do the **diagonals** next.*

Enter arrows & dashes for the movement – examples

```
Octant-1 horizontal [ 1, -1] = ↑ ↓
Octant-2 diagonal   [ 1,  0] = ↑ –
Octant-7 vertical   [-1, -1] = ↓ ↓
Octant-8 diagonal   [ 0, -1] = – ↓
```

Octants 1 to 8 (CCW): sign progression has to be considered

MMC – Motor Movement Checklist

If the movement (↑ ↑) matches the expected test, circle the checkmark (√). If the expected test [1, 1] does not match, then circle the (X). Note the difference between movement and expected test. One has arrows and dashes. The other has square brackets. Once the test is circled with the (X), stop and go to the next line with the next bits value.