Building Instructions:
Basic Driving and Steering Robot

Basic Design from: "Building Robots with Lego Mindstorms"
Modifications by: David Wang
Diagrams and Instructions by: David Wang
Diagrams and Instructions generated by: MLCad, LPub, L3P, and POVRay

These are the parts you will need to build this robot:

x8

x4

x2

x4

x6

x1

x8

x2

x2

x1

4

x3

6

x4

3

x2

8

x3

5

x1

10

x2

x2

x1

x3

x8

x12

x5

x2

x5

x4

x4

x1

x2

x2

x4

x2

x1

2

x1

3

x2

x1

x2

x4

x2

x4

x2

x5

x2

x2

x1

x1

x1

x4

x2

x2

x1

x1

x4

x4

x3

x2

x4

x1

x7

x1

Step 1:

x1

x1

Step 2:

x2

x1

x1

Step 3:

x3   x2

x1

x1

x2   x1

6

x1

x2   x1

Step 4:

x2   x7

x2

8   x4

2

x2   x1

Step 5:

x1   x1

x1   x1

Step 6:

Step 7:

Step 8:

Step 9:

Step 10:

Step 11:

Step 12:

x2

x4

x2

x1

Step 13:

x2

x2

x2

x1

Step 14:

Step 15:

Step 16: (Note the yellow rubber band – this part may be hard to put on. It can be found in your kit.)

Step 17:

Step 18: (The 2x2 blocks displayed here represent the ends of Lego wires)

x1

x1   x2

Step 19:

x3

x1   x2

Step 20:

Step 21:

Step 22:

x2

Step 23:

x1   x1

3

x2

6

x1   x1

4

x1

10

5

x2

x1   x1   x3

Step 24: (Attach a rubber band to the half bushing that is not triggering the switch. This can be tricky. This rubber band should have a certain tension to prevent false triggering due to bouncing while pulling the extension bumper down and into the switch)

Step 25:

Step 26: (Connect the wires from steps 13 & 14)
Note: The direction and order of the wire connections matter