

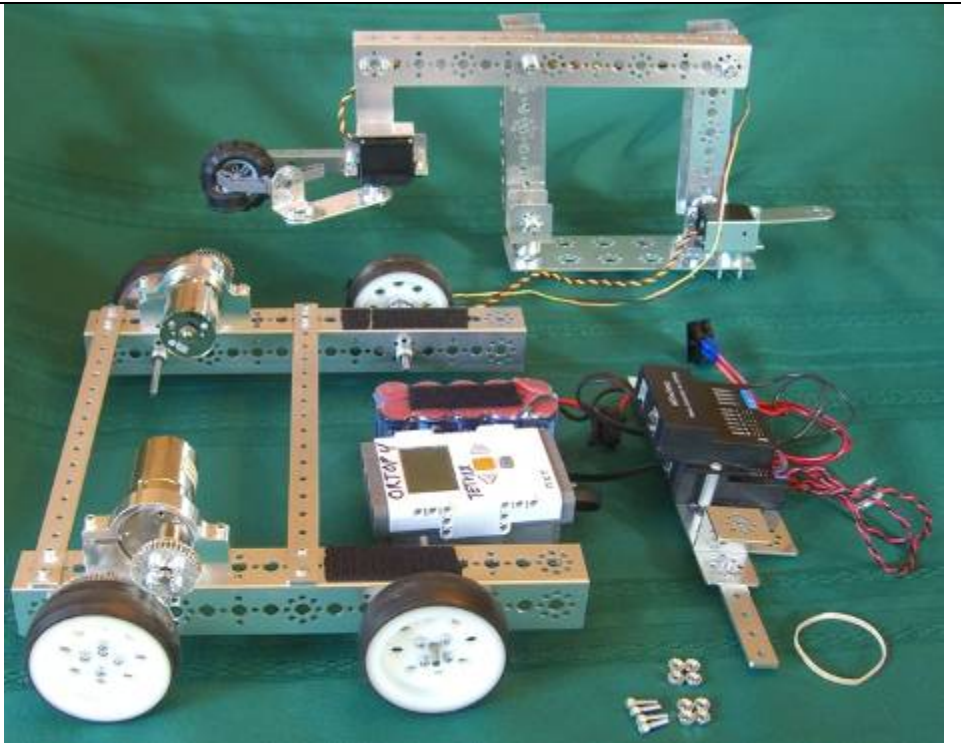
ORTOP Modular Robot v2.1

Final Assembly

Assemble Controller Module to Chassis

Parts Needed:

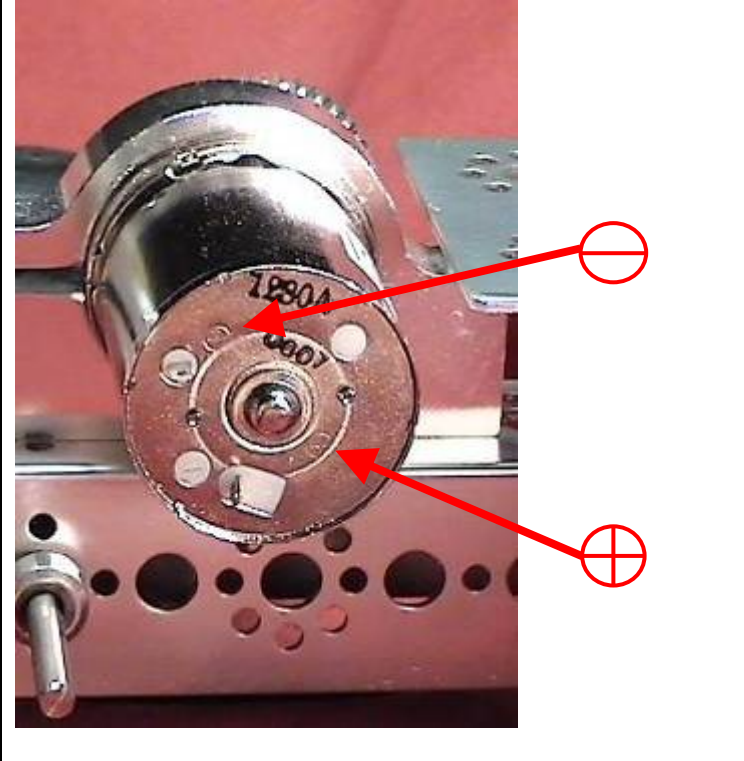
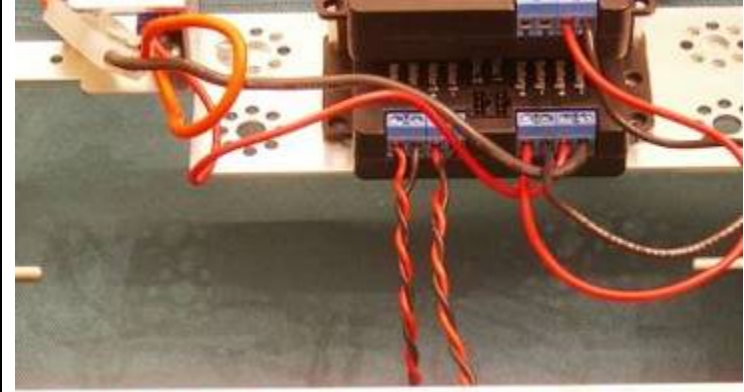
- 1 – Chassis assembly
- 1 – Controller module assembly
- 4 – Cap screw, 1/2"
- 8 – 6-32 nuts
- 1 – Rubber Band



Assembly



1. Place the controller module on the rear of the chassis as shown, with the outermost rear holes of the controller module aligned with the outermost rear holes on the chassis channel.
2. Note that the holes where the screws go are arrowed in the illustration.



3. Secure the module with four 1/2" cap screws and nuts.

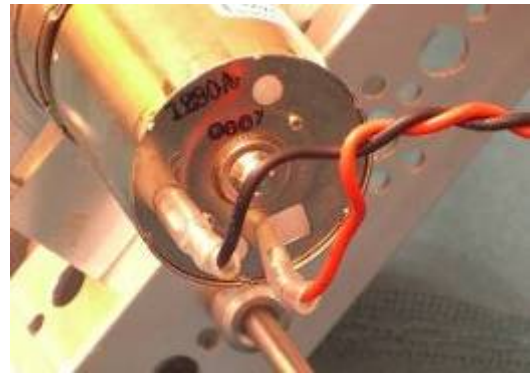
4. Connect the red/black motor wires to the two motor ports on the motor controller block. Unscrew the set screws on the Motor 1 and Motor 2 connector block until the stripped end of the wires will fit into the hole.

5. Make sure the red wire goes to the + terminal and black wire to - terminal.

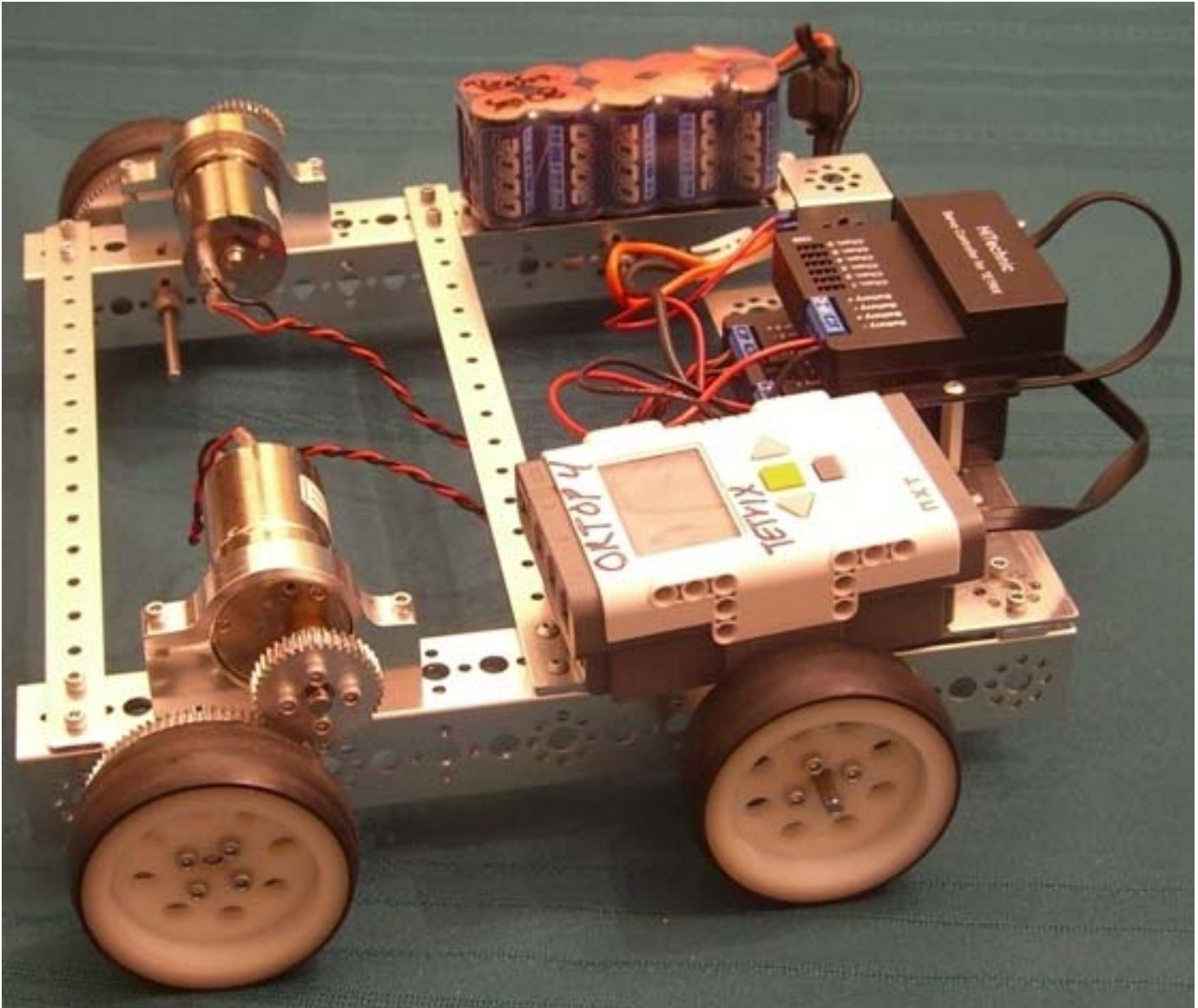
6. Tighten the set screws firmly. Make sure the wires will not pull out after tightening.

7. Identify the plus (+) and minus (-) terminals on the drive motors. (see image below left)

8. Connect wires from the port 1 of the motor controller to the left motor with red to + and black to -. Connect the wires from port 2 of the motor controller to the right motor. Route wires as shown in the diagram on the next page. **Warning:** the motor tabs are very delicate and can be broken very easily.



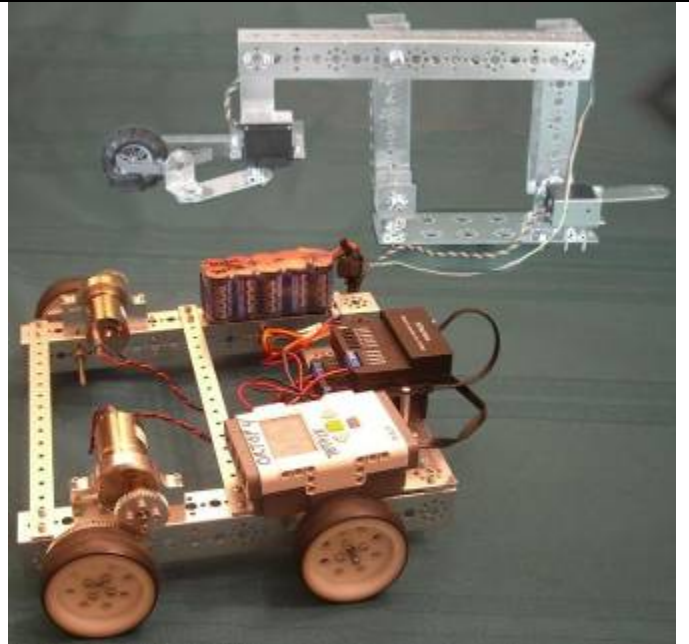
Controller Module Mounted to Chassis



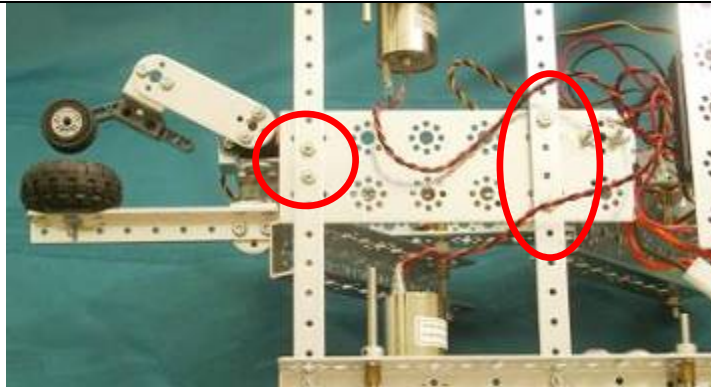
Assemble Arm Module to Chassis

Parts Needed:

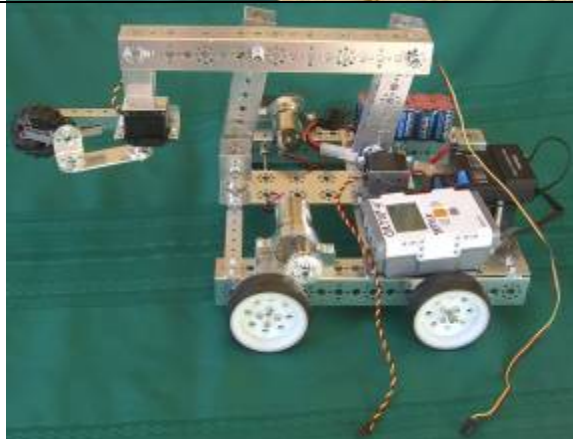
- 1 – Chassis and Controller Assembly
- 1 – Arm Assembly
- 4 – 6-32 Nuts
- 1 – Servo Extension Cable



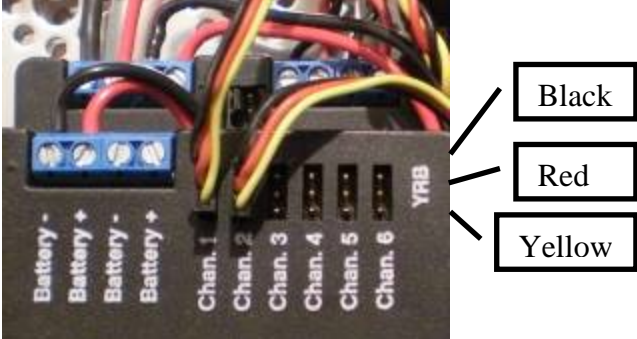
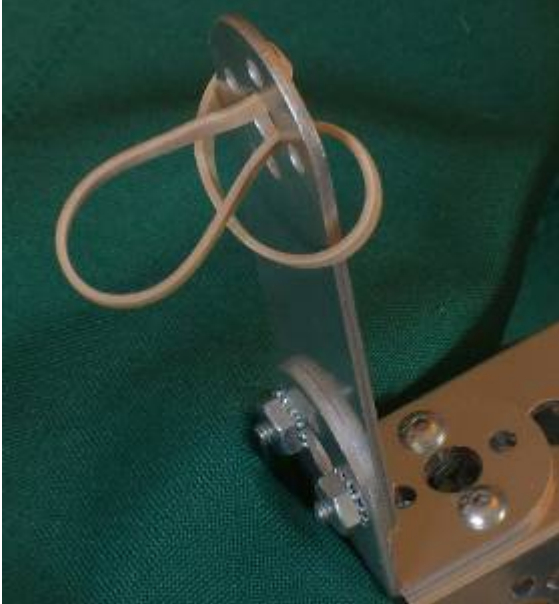

Assembly



9. Turn the arm assembly upside down and place the chassis upside down on top of the arm assembly such that the four screws protruding from the arm engage the four holes in the two flat bars such that the arm is centered on the bars. Secure with four nuts.



10. This is what the arm looks like screwed to the chassis.

	<p>11. Connect servo wires as shown. Make sure that the wire for the arm servo is plugged into Chan. 1 and the wire for the pincer servo is plugged into Chan. 2. Also, make sure that the wire colors are exactly as they appear in the image to the left; the yellow wire should correspond to the “Y” end of the YRB.</p>
	<p>12. Attach the rubber band to the bracket on the back side of the arm as shown.</p>
	<p>13. Remove the on/off switch from the channel and attach the rubber band as shown.</p> <p>14. Then re-attach the on/off switch as shown in the final image below.</p>

Completed Robot

