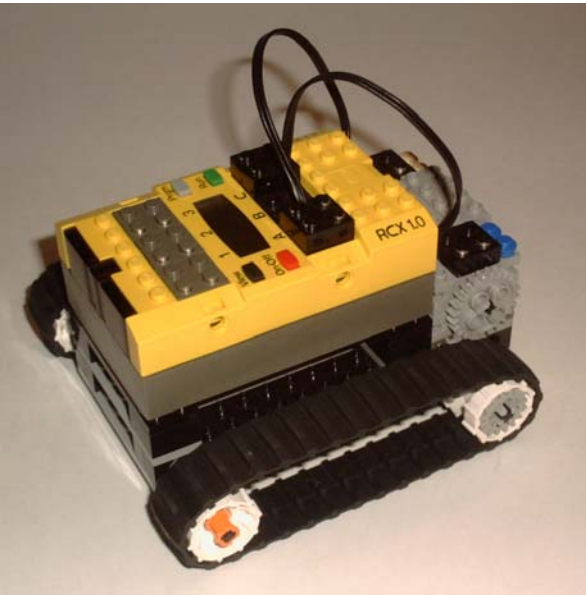
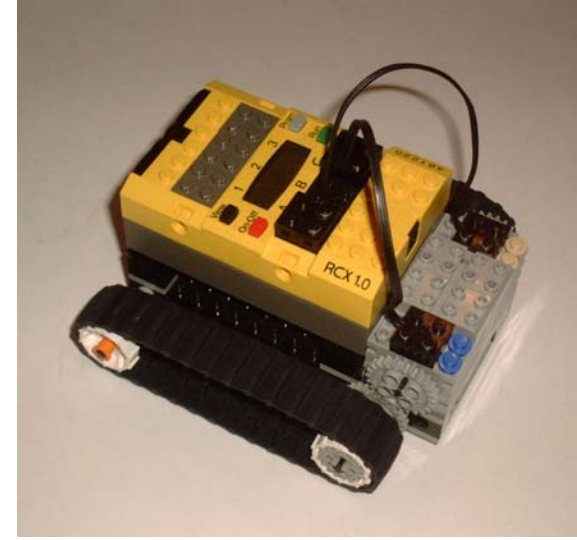


# Treaded Robot

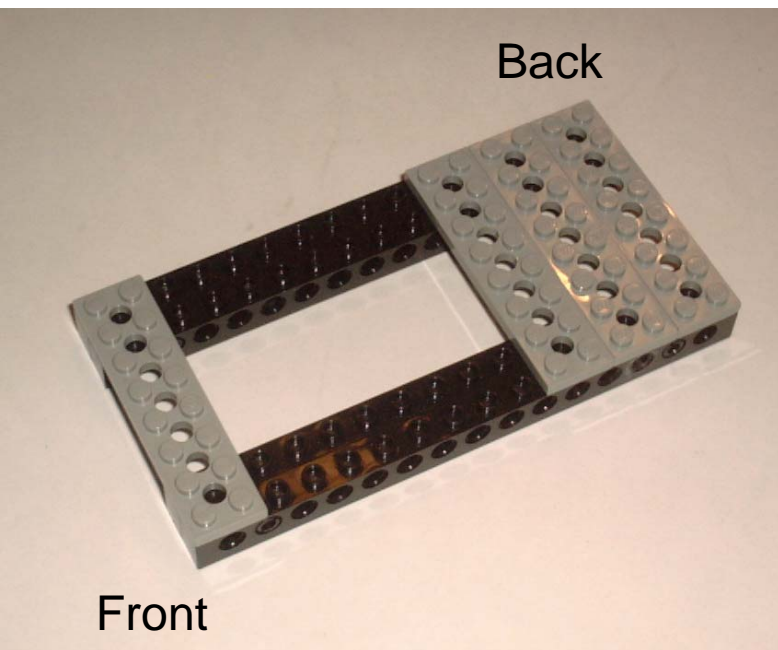
- Two motors
- 4 sprockets
- 2 treads
- RCX
- 2 short wires
- 2 – 16 toothed gears
- 2 – 24 toothed gears
- 4 axles
- Connectors
- Plates/bricks/beams



# BUILDING THE CHASSIS

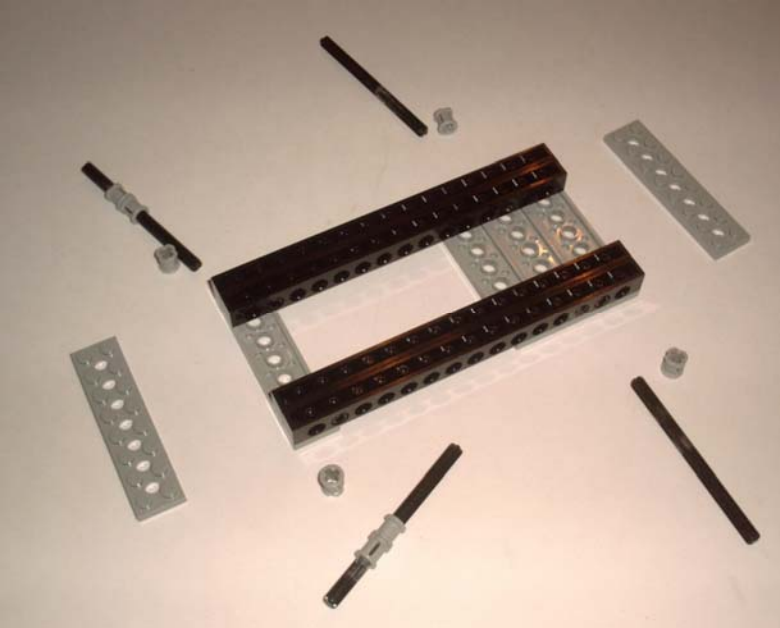
- (4) Beams – 16 knobs long
- (4) Black connectors

Connect into pairs



- (4) 2x8 plates

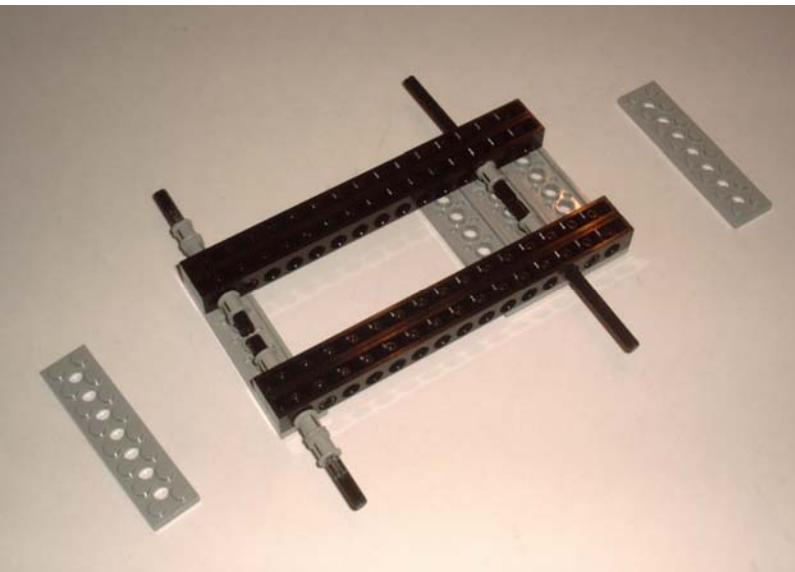
Connect one on one end  
Connect three on the other  
end



Underside

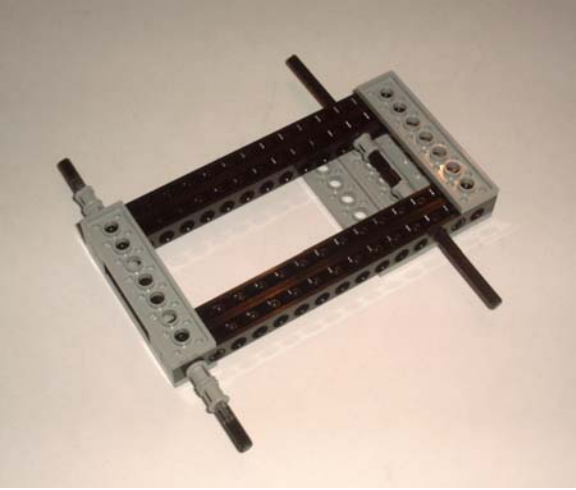
Turn chassis over and connect axles as shown

1. Rear axles are placed through the 3<sup>rd</sup> hole from the back and a bushing is used to hold in place.
2. The front axles are placed through the front hole and a bushing is used to hold in place.
3. Two additional bushings on each side of the front axles are put on to keep the sprockets from rubbing on the chassis.

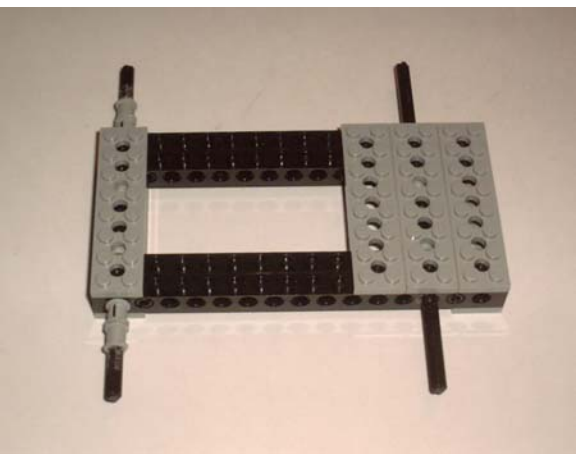


Shown assembled.

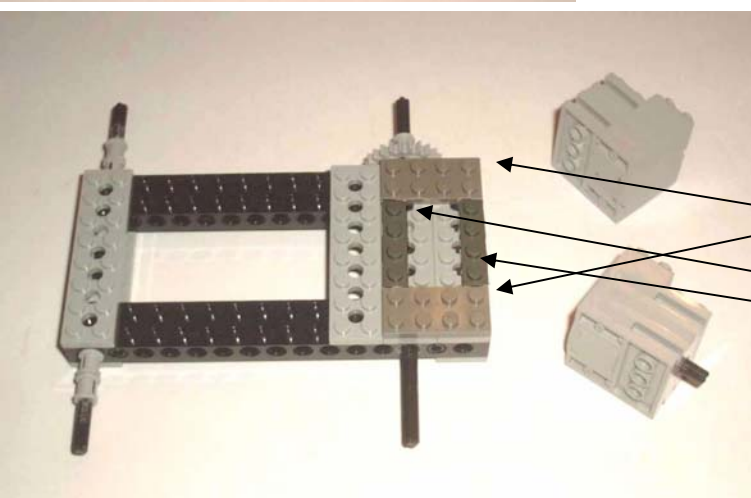
The two 2x8 plates will be added to the front and back ends of the chassis bottom.



The completed bottom

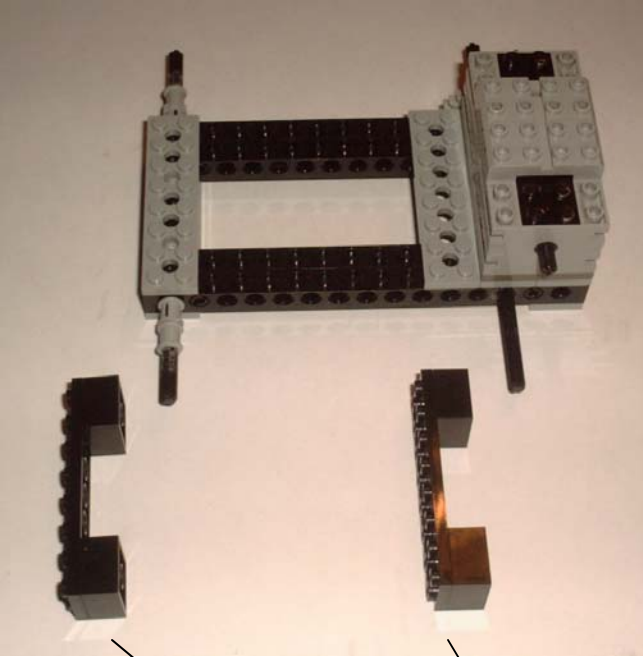


The completed top



Placing the motors on motor mounts (note the bottom of the motors have a round bulge that you have to build around)

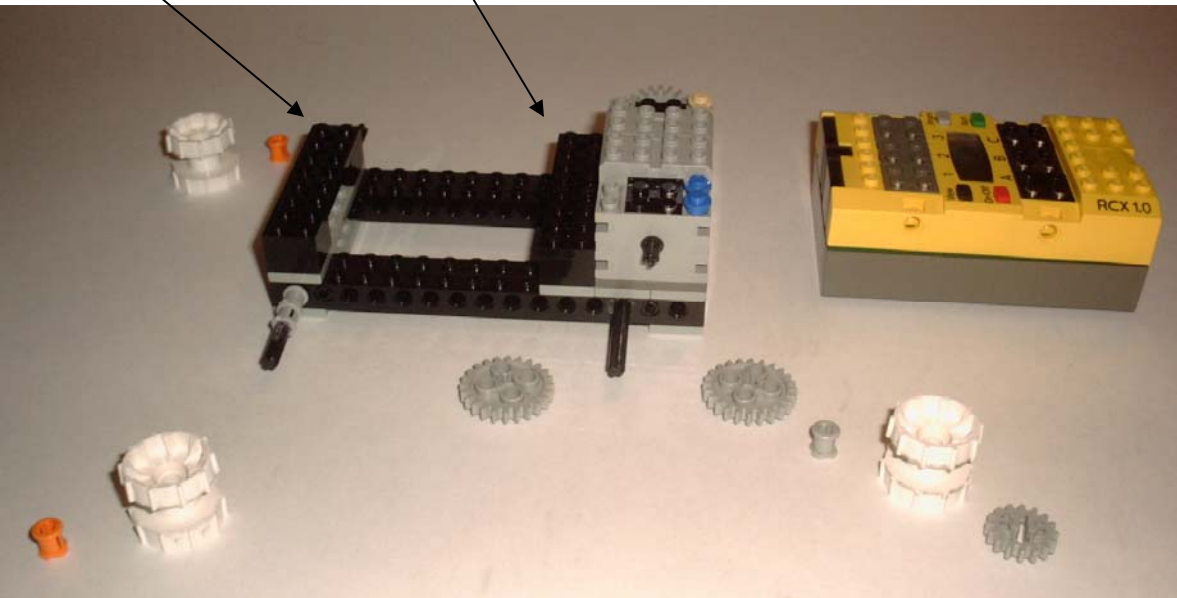
1. Place a 2x4 plate in the two back corners on the top of the chassis
2. Place two 1x4 plates side to side on the back most row, and the 4<sup>th</sup> row from the back



Here are the motors mounted on the right and left sides of the chassis at the rear.

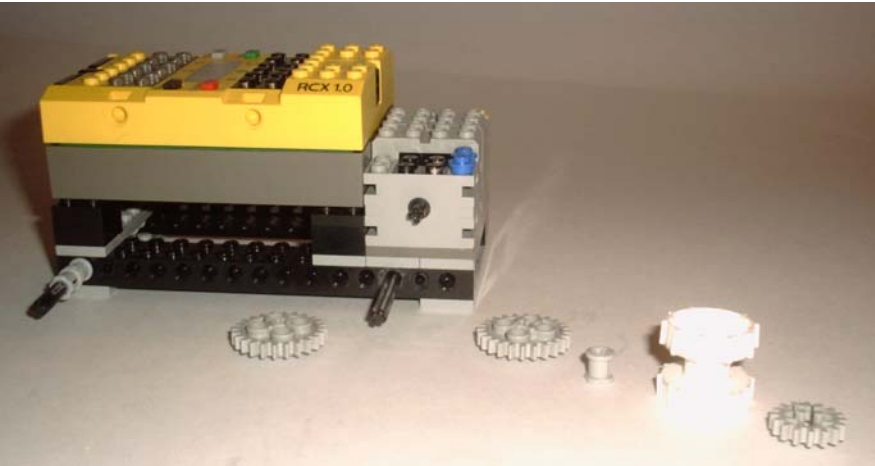
RCX Mounts:

1. Place a 2x2 brick on each end of a 2x8 plate.

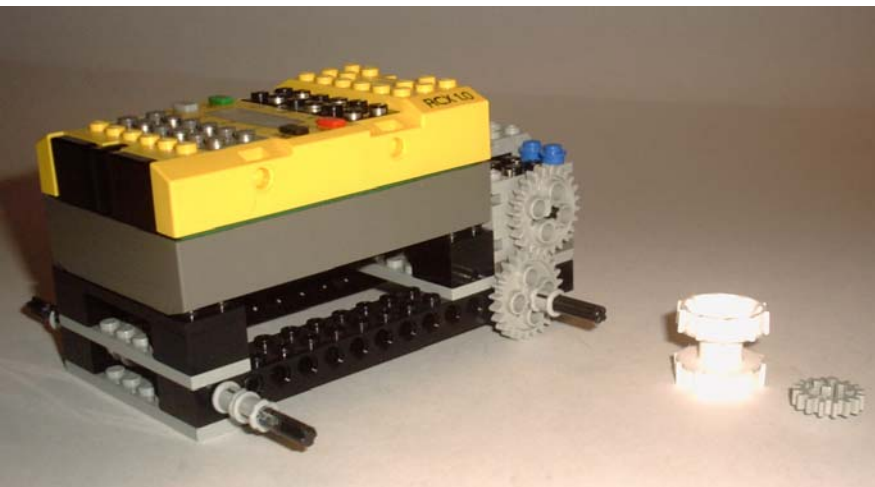


Here are the RCX mounts on the chassis. They mount on the front plate of the chassis and on the plate just in front of the motors.

# MOUNTING THE GEARS AND DRIVE SPROCKET

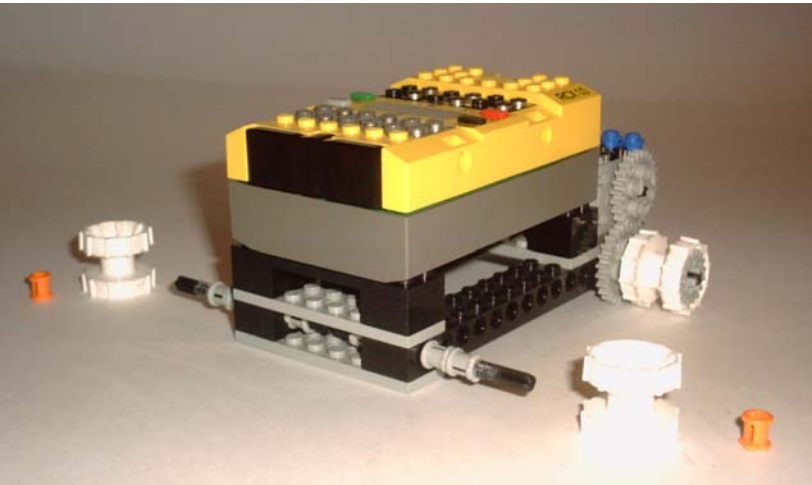


1. Place a 24 toothed gear on the rear chassis axle
2. Place a bushing on the rear chassis axle next to the gear
3. Place a 24 toothed gear on the motor axle (should mesh with the other 24 toothed gear)
4. Place a white sprocket on the rear chassis axle
5. Place a 16 toothed gear on the rear chassis axle and push in until it fits **INSIDE** the sprocket.
6. Repeat on the other side



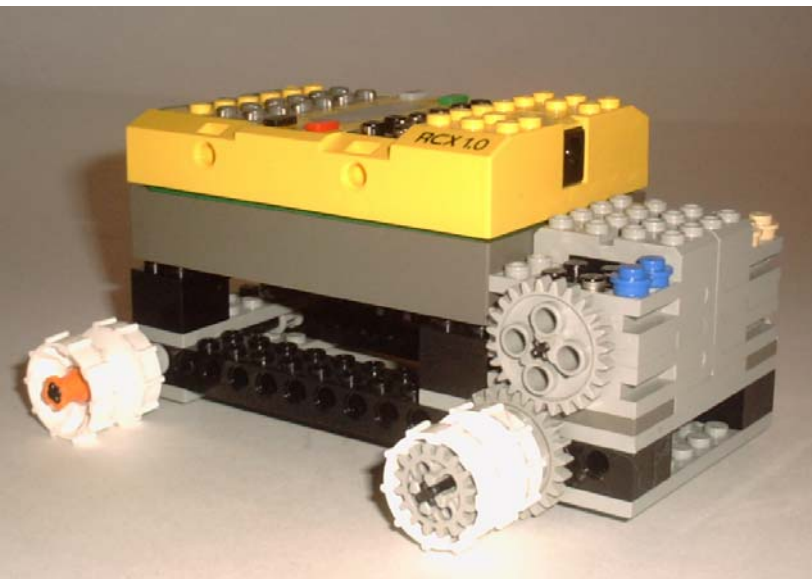
The 16 toothed gear does two things. It attaches the sprocket to the axle so they turn together and it keeps the sprocket from falling off.

# MOUNTING THE FRONT SPROCKET



1. Place a sprocket on the front chassis axle
2. Secure the front sprocket in place with a bushing

The front sprocket should spin ON the axle not with it. The bushing keeps it from falling off.



Here is an assembled picture of the robot sprocket assembly. Make sure the bushings on the inside of the axles (inside the robot body) haven't come loose. You can reach these bushings from the bottom of the robot.

# FINISHING YOUR ROBOT

Add treads and  
Wires and your  
Robot is complete

