Robot Problems / Solutions

Robot can not go in a straight line across the table:

Make sure the playing field is level.

Make sure the robot is tight by squeezing, not leaning on it.

Make sure the vehicle is built symmetrically, right to left.

If the drive system has rubber bands, switch them around and see if the robot behaves differently.

If nothing changes, check if axles rotate freely. Follow instructions for your situation:

If axles do not rotate freely:	If axles rotate freely:
• Make sure it has a little bit of side-to-side play. If there is no side-to-side play, make sure the elements on it are not pinching whatever they spin next to.	• Match the motors: 1. Take the motors completely off the robot. 2. Put the smallest gear on each motor. 3. Run the motors in opposite directions and mesh the gears by hand. 4. If the motors start revolving around each other, switch each on in turn with the third motor to seek a speed match. 5. If no two of your motors are a speed match, this does not mean that any one of them is faulty, but if the difference is severe, consider ordering a least one replacement motor from LEGO Robotics Inventions System Technical Support. You can also redesign your propulsion system to work on a single motor by using a differential, or by linking both motors through a single linkage.

Robot falls apart in service:

- Reinforce or redesign it to rely less on pieces sticking together, and more on them being locked in place using pins, plates and beams.
- Use fewer pieces.
- Use smaller pieces.
- Tighten the robot frequently by squeezing it, not leaning on it.

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