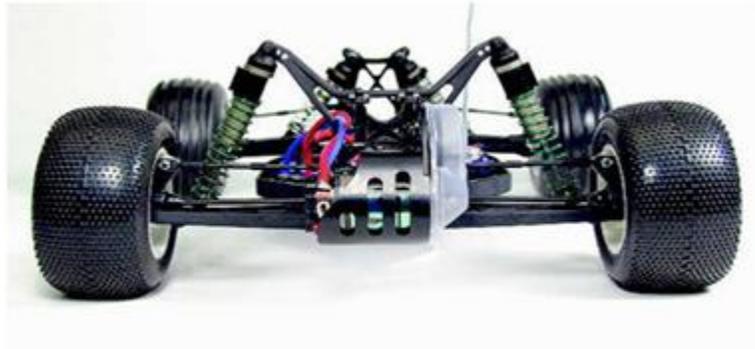
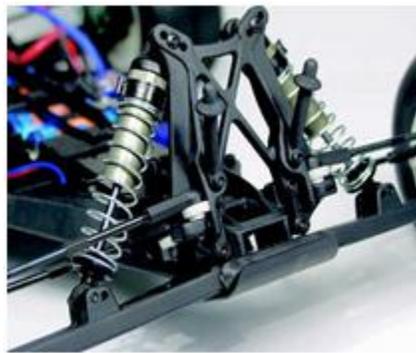


## HOW TO MAKE A GOOD BASE FOR YOUR BOT - II

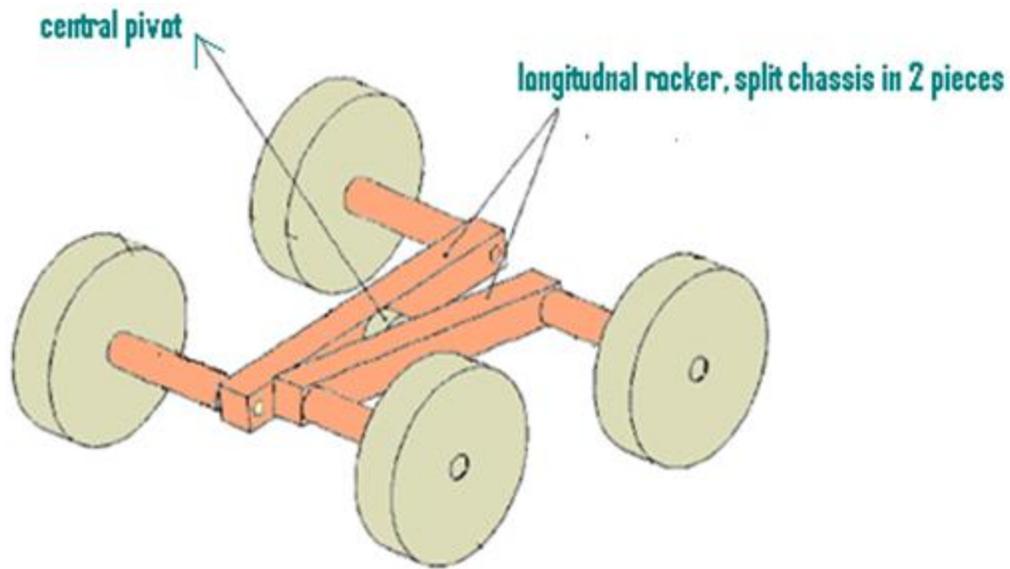
Do you need brakes or suspension for your bot?? Ask yourself first!! Unless you are building a bot for uneven terrain or for obstacle avoidance you don't need such complicated stuff.

A suspension is device that dampens the vibration as you encounter an obstacle or uneven terrain. If you still wish you can buy springs ( with dampers) from rc-hobbyist.

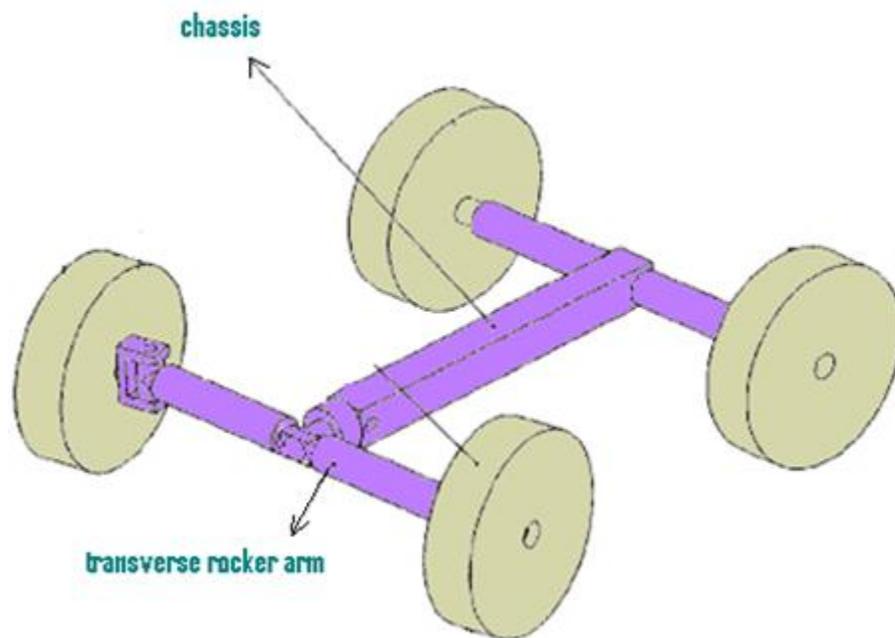
There are ways other than suspension to modify your design ( in case of four wheels, as four points donot always belong to a plane) that improves mobility. These designs help in keeping all the four wheels on ground which reduces vibration.



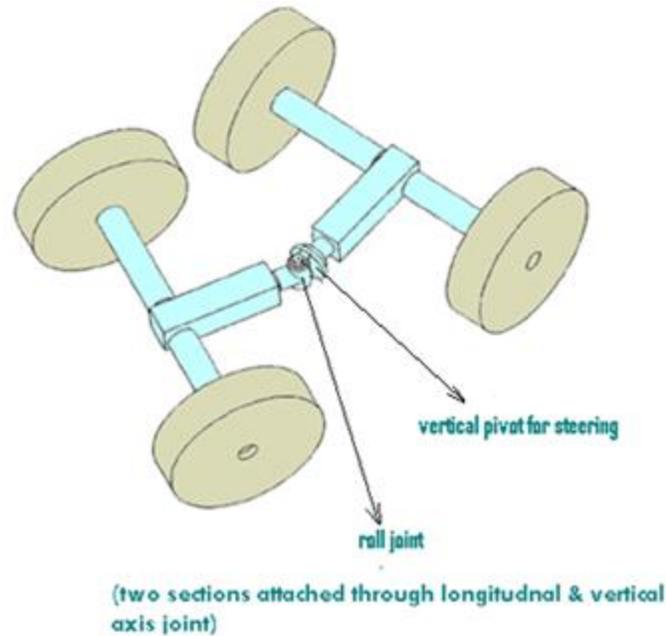
A.) **Longitudnal rocker arm:** The longitudinal rocker design divides the entire vehicle right down the middle and places a passive pivot joint in between the two halves. This joint is connected on each end to a rocker arm, which in turn carries a wheel, each at the ends of the arms. This layout allows the rocker arms to pivot when any wheel tries to go higher or lower than the rest.



B.) Transverse rocker arm



C.) **Roll joint:** Greater mobility is achieved if the center joint also allows a rolling motion between the two sections. This provides more degree of freedom and helps in keeping all the four wheels on the ground while traversing uneven terrain or obstacles. It also improves traction while turning on bumps.



## FASTENERS FOR ROBOT ASSEMBLY

1. Screws and Bolts: The best way to assemble parts of your robot. You can assemble and disassemble your robot easily. Plastic materials do not have the same strength for holding screws like aluminum or other metals.
2. Welding and Riveting: Welding and riveting are for permanent assembly. Only used when you require a very good strength and you don't need further modifications (assemble/ disassemble).
3. Adhesives:
  - Tapes: there are many types of tape, double tape (that has two sticky surfaces), etc for fixing items.
  - Super glue: is very useful for extremely light weight robots.
  - Glue gun is very effective and easy to work. You can also protect your soldering with the glue to make it permanent. Cost between Rs300-500



- Velcro: if you need detachable part like battery or circuit board, this is strong and easily available. But it cannot sustain heavy parts.



Source : <http://www.botskool.com/tutorials/mechanical/make-base-for-bot-2>