



Hydraulic Robots 101

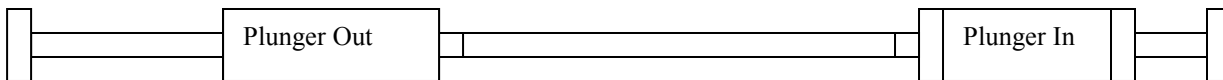
Problem: To design a system capable of moving in two directions using a syringe hydraulic system.

Materials: Each team will be provided six syringes, three clear tubing pieces, tape, and other miscellaneous material.

The word “hydraulics” generally refers to power produced by moving liquids. Modern hydraulics is defined as the use of confined liquid to transmit power, multiply force, or produce motion. When air is used, it is called PNEUMATICS.

Procedure:

1. Attach a syringe to each end of the tubing. Be sure to have one plunger all the way in and one plunger all the way out.



2. Repeat this procedure for all the tubing.
3. Push in on one plunger and observe what happens.
4. Now take a plunger out and fill the hose and syringe with water.
5. Again, push in on one plunger and observe what happens.

Now that your team has gathered research on how the hydraulic syringe system works, it will be your job to create one device that moves in two different directions.