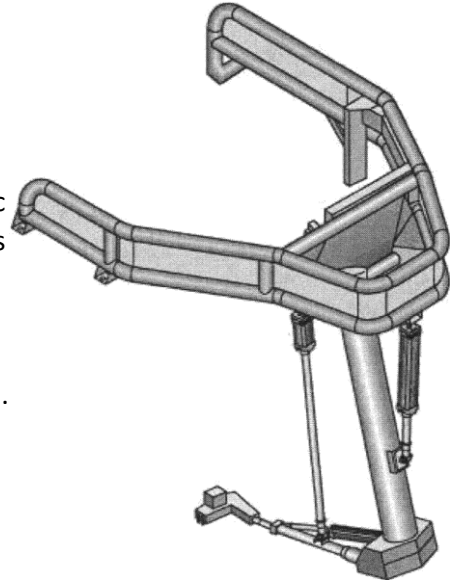


Activity 3.2.1 Pneumatics

Purpose

Pneumatics comes from the Greek word: pneuma, meaning air. Pneumatic air tools are becoming more popular because they often have fewer parts and are more durable and lighter than electric tools. A larger example is a jackhammer. The rapid sound heard when a jackhammer is running is an example of the quick action that can be achieved with pneumatic components. Pneumatic tools also have the advantage of being very clean. The example to the right must have the ability to run cleanly since it is a pneumatic design for milking cows.



Procedure

In this activity you will research a Pneumatic device. You are responsible for gathering information to contribute to a class discussion regarding the device.

With your research you will answer the following questions.

What is the device that you researched?

Describe the function and purpose of the system.

The following components are common to pneumatic devices. Sketch the device labeling the components and describe each component specific to the system being demonstrated.

- Receiver tank
- Transmission lines
- Compressor
- Cylinder
- Valve(s)
- Filter
- Regulator

- List and describe any other components present in the system.

4. Be prepared to identify and explain the role of any part of the pneumatic system to the class.

Conclusion

When researching the pneumatic device, explain something that was different than what you expected.

Name and describe a pneumatic device that is used to help a person with a disability.

Name and describe a pneumatic device that is used as part of an automated piece of machinery in a manufacturing setting.