



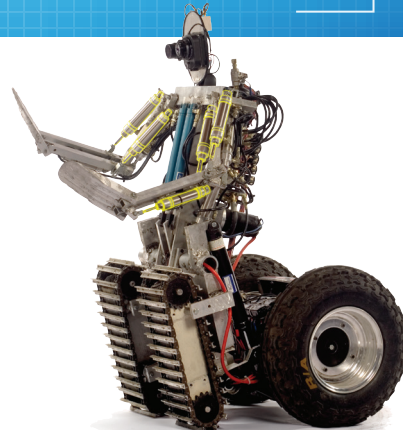
# FIRST®

## Get up to 2 FREE cylinders from Bimba as part of your Kit of Parts!

- Ordered as part of the Virtual Kit due to the various sizes/options\*
- 4 bore sizes to choose from
- Optional magnet for position sensing capabilities\*\*
- Visit [bimba.com/First-Robotics](http://bimba.com/First-Robotics) to order your FREE cylinders

*\*Order forms are available on the website and run through the Championships in April.*

*\*\*Two MRS-.087-B switches and hardware are included when cylinders with the M option are ordered.*

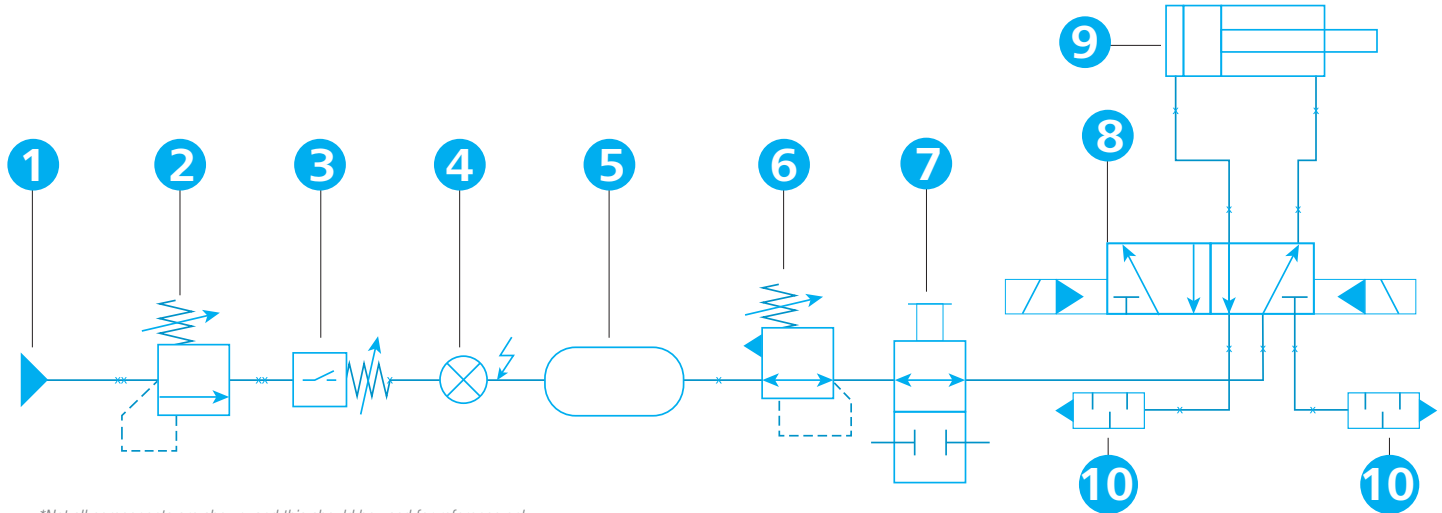




## How to Build A Pneumatic Circuit

This circuit is based on the components listed in the *FIRST*® Robotics Competition Pneumatics Manual\* and is intended to help you understand what is needed to run an air cylinder on your robot.

- |                          |                                |                      |              |
|--------------------------|--------------------------------|----------------------|--------------|
| 1. Compressor            | 4. Intelligent Pressure Sensor | 7. Manual Ball Valve | 10. Silencer |
| 2. Pressure Relief Valve | 5. Air Tank                    | 8. Valve             |              |
| 3. Pressure Switch       | 6. Regulator                   | 9. Cylinder          |              |



\*Not all components are shown, and this should be used for reference only.  
Please see the FRC Game Manual for official rules.