## Controlling $\pi PC$ Mass Flow Controller

(Must use 32-bit version of Java and Internet Explorer)

Control Mass Flow Controller via Laptop (see IT to control over network computer):

- Go to "**Tools**" in Internet Explorer (gear icon in the upper right-hand corner)
- Go to "Manage Add-Ons"
  - Make sure all **Oracle** software is "**Enabled**"
- Make sure computer is **NOT** connected to the internet
- Connect computer to mass flow controller via ethernet cable
- Go to the windows search bar (bottom left) and search "Status and Tasks"
  - Right click "Ethernet" and select "Properties"
  - Go to "**Networking**" tab
  - Make sure **ONLY** the first 4 boxes are selected
  - Select "Internet Protocol Version 4 (TCP/IPv4)"
    - Last digit of IP address should be changed:  $192.168.30.2 \rightarrow 192.168.30.1$
    - Subnet Mask should be: 255.255.255.0
    - Leave Default Gateway to whatever number it defaults to
- Open Internet Explorer Browser
  - Enter IP address into URL: <u>http://192.168.30.2</u>

## Using Mass Flow Controller:

- To set pressure you must be in "Setup" mode
- Go to "**Configuration**" tab
  - Type in password *config* and select "Change Settings"
- Go to "**Plot**" tab
  - Enter pressure in Torr in "Set Point" field and click "Submit"

## Troubleshooting:

- To plot the pressure you must enable security permission in Java
  - Go to "Control Panel" and select the "Large Icons" view
  - Select "Java (32-bit)"

- Select "Security" tab
  - Add the IP address <u>http://192.168.30.2</u> to "Exception Site List"
- Open new Internet Explorer browser and return to Mass Flow Controller page (see above)
- Now you can go to "Select Variables", "Select Rate", and "Start"
- To save a plot
  - Go to C:/ProgramFiles(x86)/Java/jrel.8.0 191/lib/security
    - Or go wherever you saved the program files for your version of Java
  - Edit the **java.policy** file
    - Add the following bold text as a new line: **Permission**

## java.security.AllPermission;

- If this doesn't work, copy the file to somewhere else, edit it, then replace it in the original folder
  - Then reopen browser and try to save again