Installation of ROS Fuerte for the Turtlebot on a Lenovo X130e

- Go into the UEFI BIOS and disable the web cam and microphone
- use the Universal USB installer creator (or another method of your choosing) to build a Ubuntu 12.04 Desktop x64 installer USB key
- install Ubuntu 12.04 Desktop x64 on the Lenovo X130e
    - set user to “turtlebot”
    - set it to log in automatically (remember the password for ssh'ing in later!)
    - install all updates to the system after initial installation but do not install other software
        - sudo apt-get update
        - sudo apt-get upgrade
- boot into the desktop
    - make sure you set the laptop to not go to sleep
        - `Do Nothing` in all selections except `Shutdown` when the battery is critical
    - make sure to set the laptop to blank the display when closed
        - not applicable to 11.10 and above
    - log in to the wireless network you are using and make sure it is shared by all users on the machine (should be the default)
    - install openssh-server
        - sudo apt-get install openssh-server
    - install ROS fuerte
        - sudo sh -c 'echo "deb http://packages.ros.org/ros/ubuntu precise main" > /etc/apt/sources.list.d/ros-latest.list'
        - wget http://packages.ros.org/ros.key -O - | sudo apt-key add -
        - sudo apt-get update
        - sudo apt-get install ros-fuerte-turtlebot
        - echo "source /opt/ros/fuerte/setup.bash" >> ~/.bashrc
        - sudo apt-get install python-setuptools python-pip

- sudo pip install -U rosinstall vcstools rosdep
- roscd turtlebot_bringup/upstart
- sudo ./install.bash wlan0
- sudo apt-get install chrony
- sudo ntpdate ntp.ubuntu.com
- echo export ROS_MASTER_URI=http://IP_OF_TURTLEBOT:11311 >> ~/.bashrc
  - remember to fill in the IP address (if fixed) or DNS name of the turtlebot
- echo export ROS_HOSTNAME=IP_OF_TURTLEBOT >> ~/.bashrc
  - remember to fill in the IP address (if fixed) or DNS name of the turtlebot

- install the battery patch to ROS
  - this is the same patch as for electric, but works
    - wget http://www.cs.uaf.edu/~olawlor/2012/laptop_battery.py
    - sudo cp laptop_battery.py /opt/ros/electric/stacks/turtlebot/turtlebot_node/scripts/laptop_battery.py
    - rosmake turtlebot_node
    - sudo service turtlebot restart