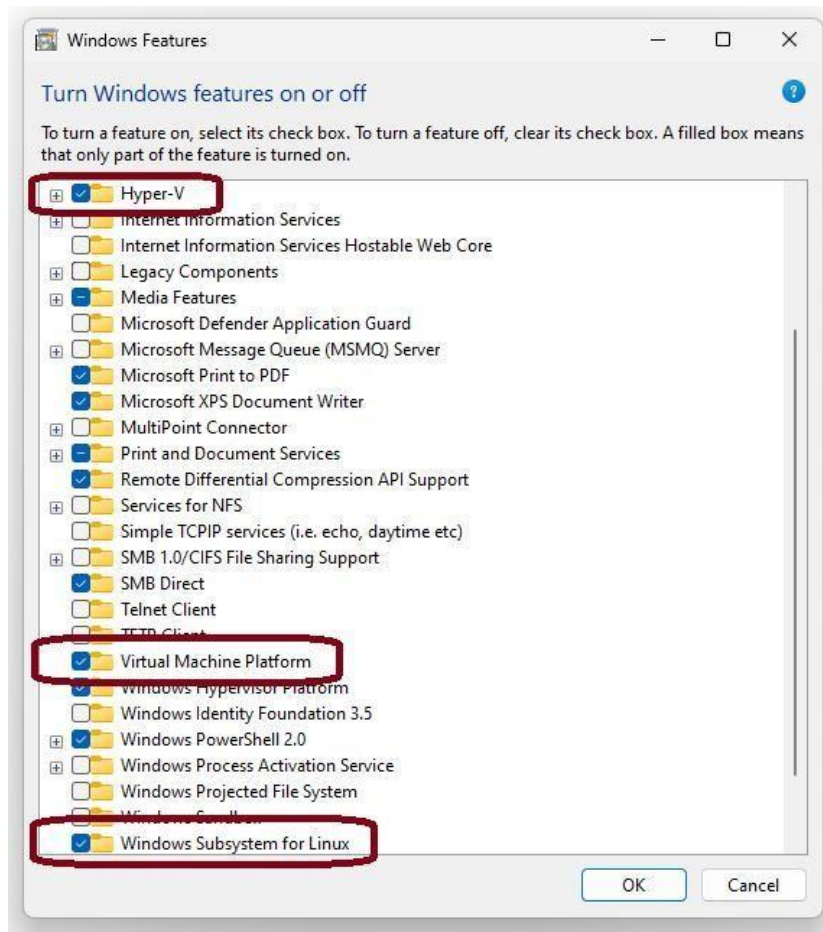# ROS WITH WSL2

1. Search and open "Turn Windows features on or off" in the windows start menu and mark these selected options in red rectangle. Click in OK button and after installation restart system:

2. Open Microsoft Store, search Ubuntu, select and install Ubuntu 20.04 from the search result.

3. Download and install [this file](#) on your computer.

4. Open and select in the start menu Ubuntu 20.04, this will open a terminal in windows to install the system. Configure what is needed (user and password) when solicited.

5. After this, your terminal will be Ubuntu, then install ROS normally
   a) sudo sh -c 'echo "deb http://packages.ros.org/ros/ubuntu $(lsb_release -sc) main" > /etc/apt/sources.list.d/ros-latest.list'
   b) sudo apt install curl # if you haven't already installed curl
   c) curl -s https://raw.githubusercontent.com/ros/rosdistro/master/ros.asc | sudo apt-key add -
   d) sudo apt update
   e) sudo apt install ros-noetic-desktop-full
   f) echo "source /opt/ros/noetic/setup.bash" >> ~/.bashrc
   g) source ~/.bashrc
   h) sudo apt install python3-rosdep python3-rosinstall python3-rosinstall-generator python3-wstool build-essential
   i) sudo apt install python3-rosdep
   j) sudo rosdep init
   k) rosdep update

Interface WSL Ubuntu

1. Install and run the commands below, line by line:
   a. sudo apt install -y xrdp xfce4 xfce4-goodies
   b. sudo sed -i 's/3389/3390/g' /etc/xrdp/xrdp.ini
   c. sudo sed -i 's/max_bpp=32/#max_bpp=32\nmax_bpp=128/g' /etc/xrdp/xrdp.ini
   d. sudo sed -i 's/xserverbpp=24/#xserverbpp=24\nxserverbpp=128/g' /etc/xrdp/xrdp.ini
   e. echo xfce4-session > ~/.xsession

2. Edit file with nano
   sudo nano /etc/xrdp/startwm.sh

3. Comment out the lines at the end of the file by adding the # in front of the command
   # test -x /etc/X11/Xsession && exec /etc/X11/Xsession
   # exec /bin/sh /etc/X11/Xsession

4. Add these commands at the end of the file after the above comments
   #xfce4
   startxfce4

5. Press Ctrl+X, Y and Enter to save file

6. Run this command below
   prompt sudo /etc/init.d/xrdp start

7. Finally, look for the remote desktop application in the start menu, put localhost:3390 and press connect button, accept what is needed and use your user and password that you created in the beginning of this tutorial.