As mentioned in this guide, we use Intel NUC8i5BEH mini PC as our host machine. This machine has met the requirements in [Section 2.1, “Prerequisites”](https://github.com/zach-goh/Omron_AMR_ROS2/blob/master/docs/DeveloperGuide.adoc#prerequisites) and has it’s ROS set up to work with multiple machines as described in [Section 2.4, “Set Up Host/Remote Machine”](https://github.com/zach-goh/Omron_AMR_ROS2/blob/master/docs/DeveloperGuide.adoc#set-up-host-remote-machine).

The machine has also been configured to run this package automatically when it has booted into Ubuntu. This allows us to run ROS nodes on our own remote machines with this host machine. This improves the accessibility of ROS with our AMR. Press the power button on Intel NUC8i5BEH, wait for a minute or so to boot, then run ROS nodes on our remote machine(s). The NUC has been configured to automatically boot on startup then

The NUC has also been configured to boot on power and then automatically run the ROS script.

This is achieved with help of several external programs and bash scripts:

1. bash script  
     
   In a custom bash script called “boot.bash”, copy the following lines below  
     
   source /opt/ros/foxy/setup.bash  
   source <workspace directory>/Omron\_AMR\_ROS2/install/setup.bash  
   ros2 launch om\_aiv\_util server.launch.py
2. cron  
     
   The custom bash script we have will automate the launching of several things for us. However, we need to get the machine to run that script at boot. To do this, we use cron job scheduling utility to help us. To configure, input sudo crontab -e in a bash terminal, then copy the following line below  
     
   @reboot sleep 30 && <bash\_file\_directory>/boot.sh
3. NUC startup on power cycle

See [here](https://www.intel.com/content/www/us/en/support/articles/000054773/intel-nuc/intel-nuc-mini-pcs.html) for instructions on how to configure the NUC to startup when power is supplied to it.

If you experience errors relating to topics not being discoverable on reboot, try [this](https://answers.ros.org/question/375968/ros2-foxy-not-seeing-topics-published-in-sudo-shell/).