Experiments in Robot Modeling with ROS

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Experiment 1: Sourcing the ROS Environment

> **Problem**
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> **Problem:** In a Linux environment with ROS, each new shell requires sourcing the ROS environment using the command: `source install/setup.bash`. This must be repeated every time a new terminal is opened, which is inefficient and prone to errors.

Solution: To streamline the workflow, the environment can be automatically sourced by adding the following command to the shell configuration file:

```
echo "source /opt/ros/rolling/setup.bash" >> ~/.bashrc
```

However, if this command does not work as expected, it may result in the error message:

```
bash: /home/noi/pw2/install/setup.bash: No such file or directory
```

Steps to Resolve:

1. Open the configuration file with a text editor using the command:

   ```
   nano ~/.bashrc
   ```

2. Scroll to the end of the file and review the lines that source the ROS environment. Ensure the correct ROS distribution is specified:

   ```
   source /opt/ros/rolling/setup.bash
   source ~/pw2/install/setup.bash
   ```

3. Verify the file path is accurate and points to the correct setup.bash file corresponding to your ROS distribution. Adjust if necessary.

Rationale: This approach automates environment setup, reducing manual steps and minimizing the potential for errors related to incorrect sourcing.