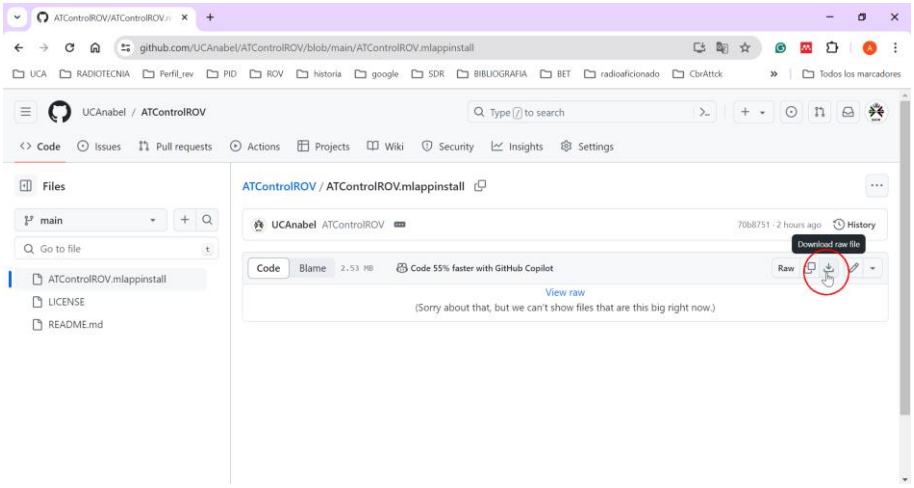
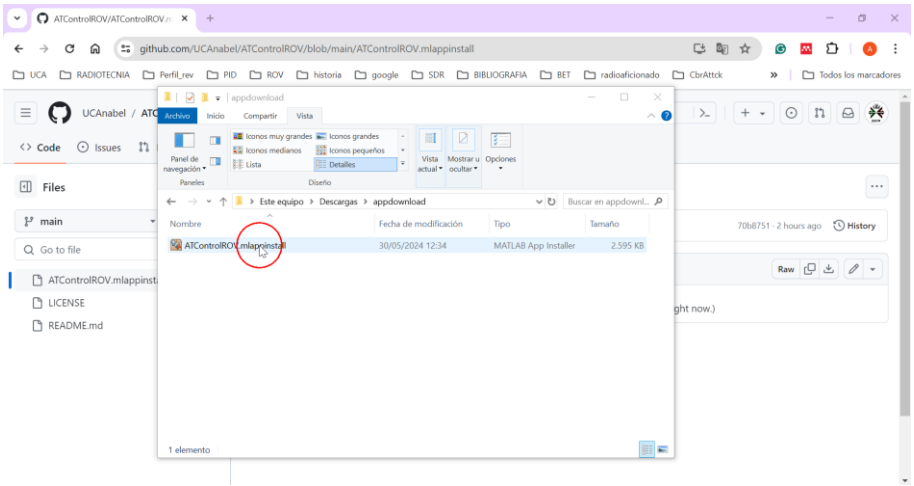
Download the Application:

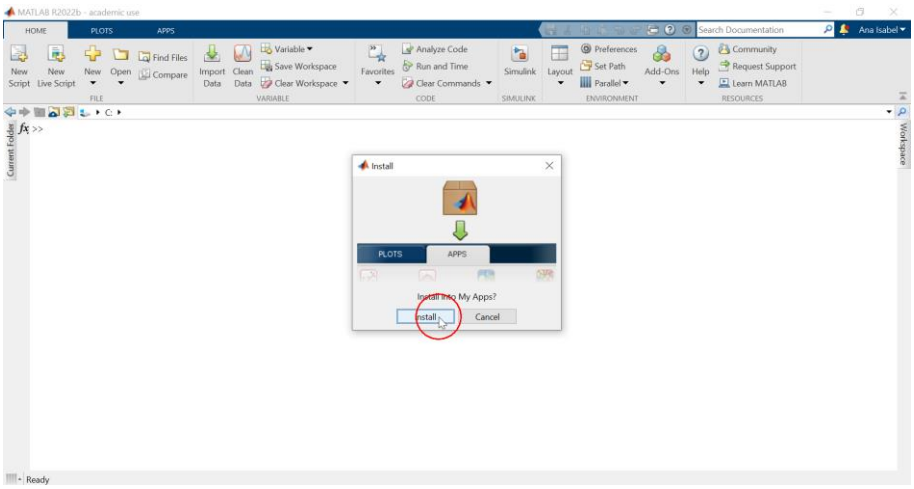
Download from the GitHub link: https://github.com/UCAnabel/ATControlROV



Install the Application:

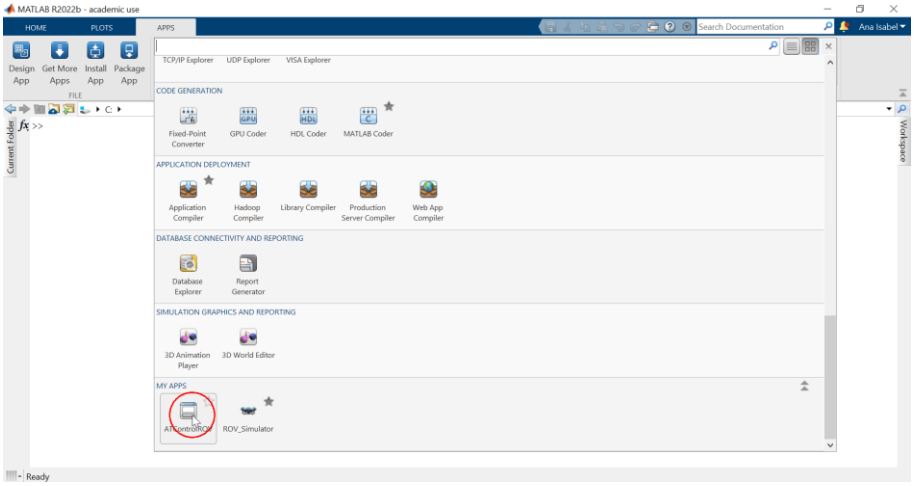
- Locate the downloaded file in your download directory and double-click on it.
- Click the "Install" button in the Matlab installer.





Open the Application:

- Open Matlab and go to the "App" tab.
- Find the application under the "My Apps" dropdown menu and select it.

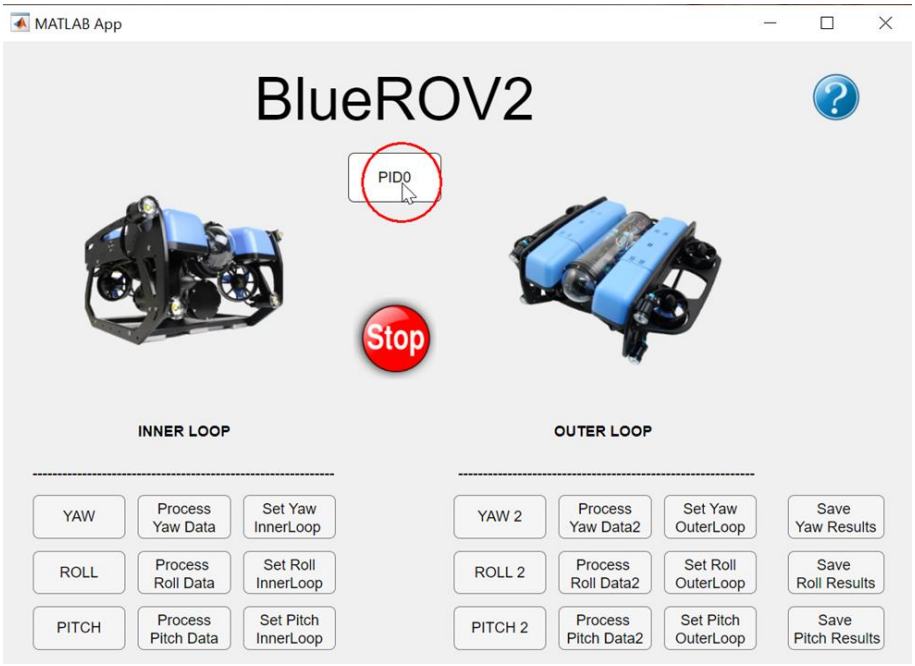


Instructions for Beginner Users:

Follow the steps in the recommended order.

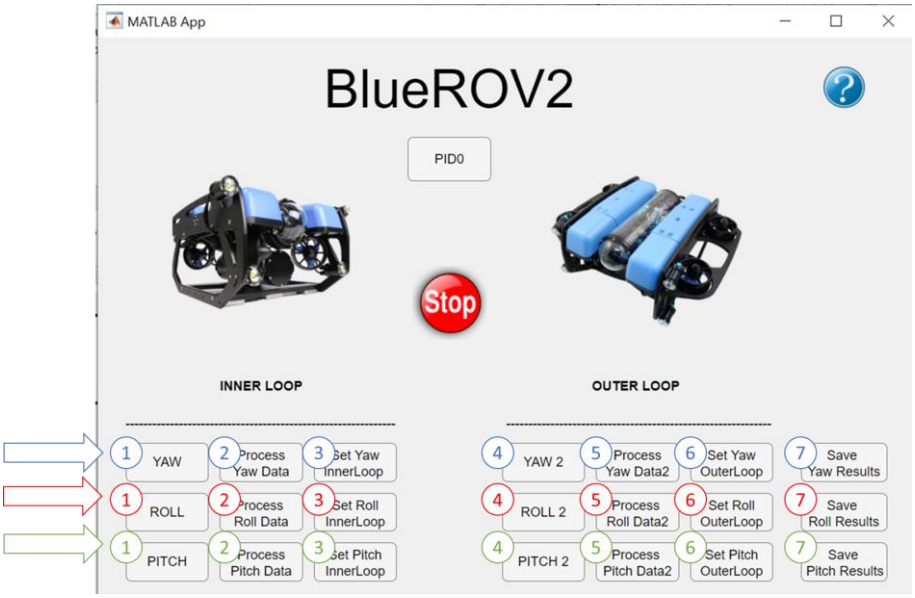
Step 1: Reset PID Controller Values:

- Press the "PID0" button to set the PID values to zero.



Perform Tests:

- Conduct the tests methodically to obtain valid results.

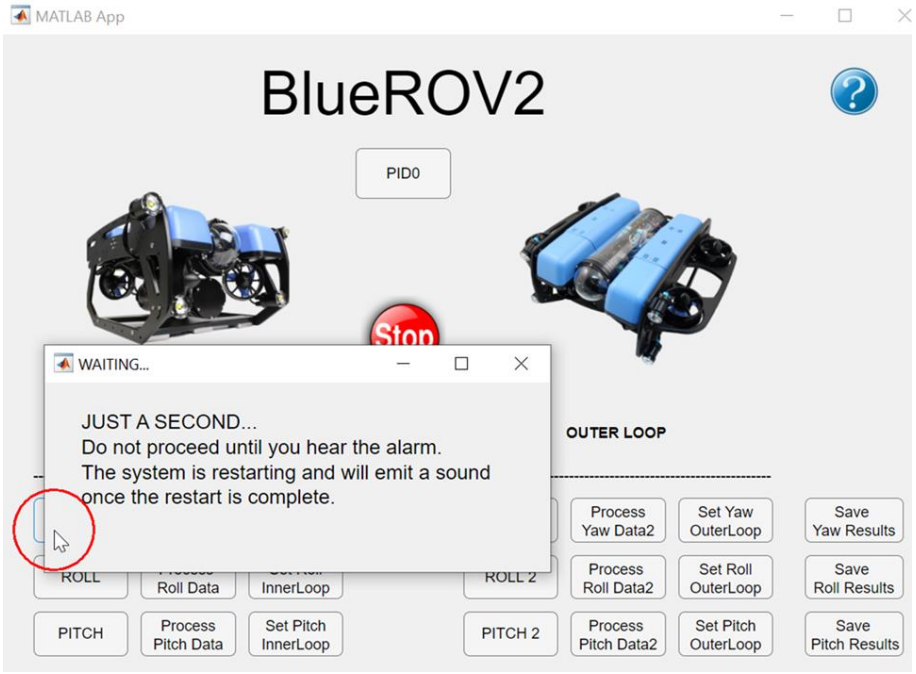


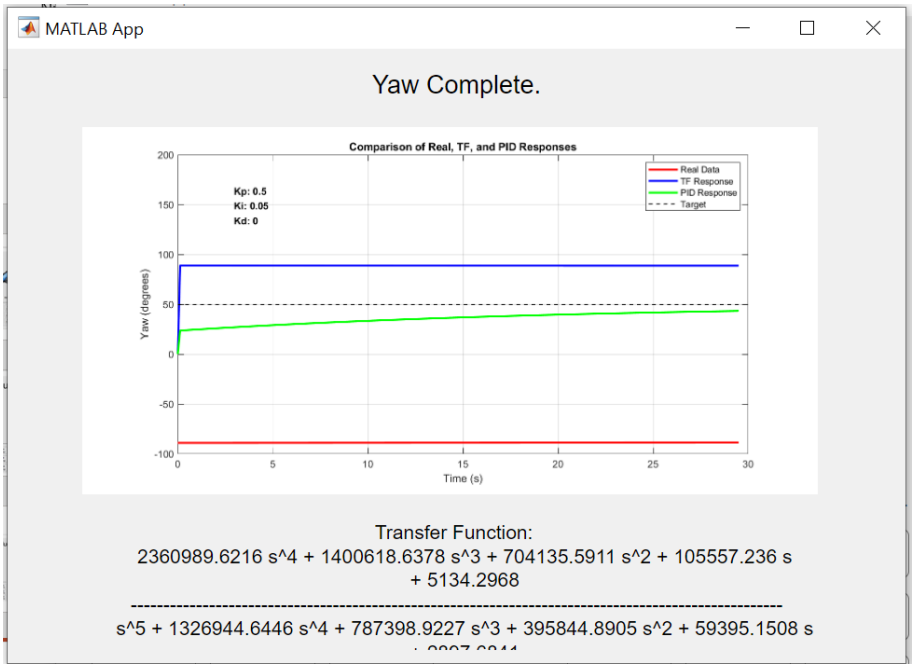
Yaw Controller Test:

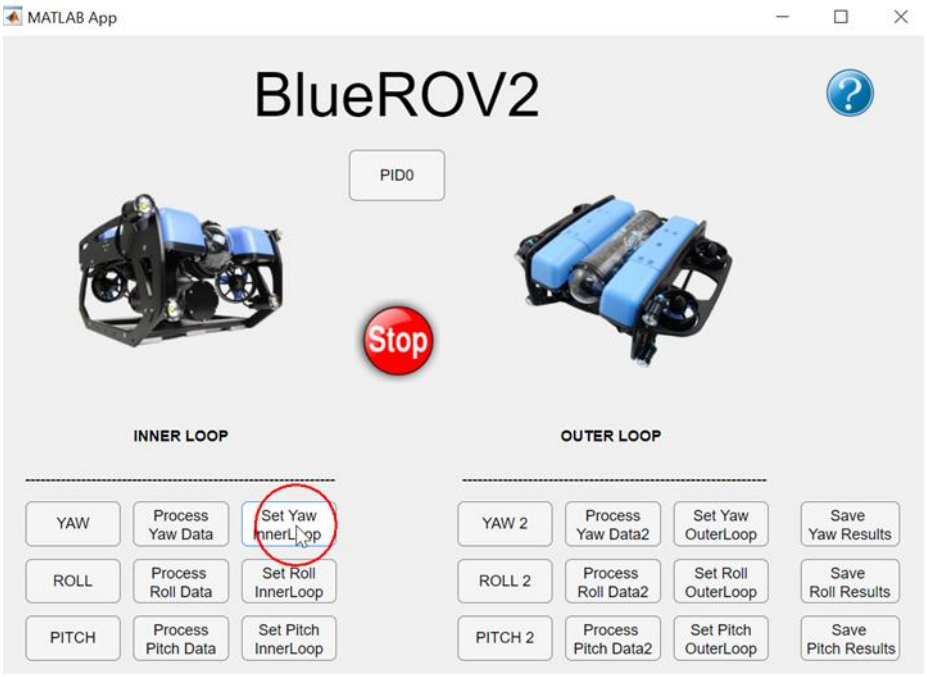
- This test has two parts: Inner Loop and Outer Loop.

Inner Loop:

- Press buttons in sequence: 1 -> 2 -> 3.
    - Button 1: Perform a movement and capture sensor data.
    - Button 2: Use calculation tools to characterize the system response and calculate optimal controller values.
    - Button 3: Set the calculated control values.







Outer Loop:

- Press buttons in sequence: 4 -> 5 -> 6.
    - Follow the same steps as the Inner Loop for each button.

Repeat Process for Roll and Pitch:

- Repeat the above process to calculate optimal control values for the roll and pitch movements.

Save Results:

- Press the "Save Results" button to perform a final test movement.
- The results will be saved automatically in the "results" folder.