

# Controller Information and Results

## Controller Type

- **Feedforward + Proportional (P) Controller**

## Feedback Gains

- **K<sub>p</sub>**: Identity Matrix

## Performance Summary

- **Overshoot**: None
- **Response Speed**: Fast
- **Accuracy**: Successfully picks and places with precision

## Notes

- This setup represents the best-case scenario, balancing speed and accuracy without overshoot.
- The error twist response can be seen in the plot, where each velocity component is plotted over time
- An extra video is included to compare the mobile manipulator response without joint limits with the same controller and gains.
  - The performance is generally the same except the fact that the arm nearly folds in on itself due to the lack of limits