**Thesis Proposal**

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**[Problem Statement]**

Use Zero-Moment-Point trajectory planning method to control Hip-Toe Motion of Biped Robots Walking.

**[Approaches]**

1. Plan ZMP trajectories and use inverse kinematics to calculate joint angles with respect to time.
2. Use closed-loop control to minimize error.
3. Run simulation in MATLAB based on simplified biped robot model.

**[Possible Add-ons]**

1. Try to run the simulation based on REEM-C in ROS.
2. Combining existing control methods or modify different control methods to minimize error.