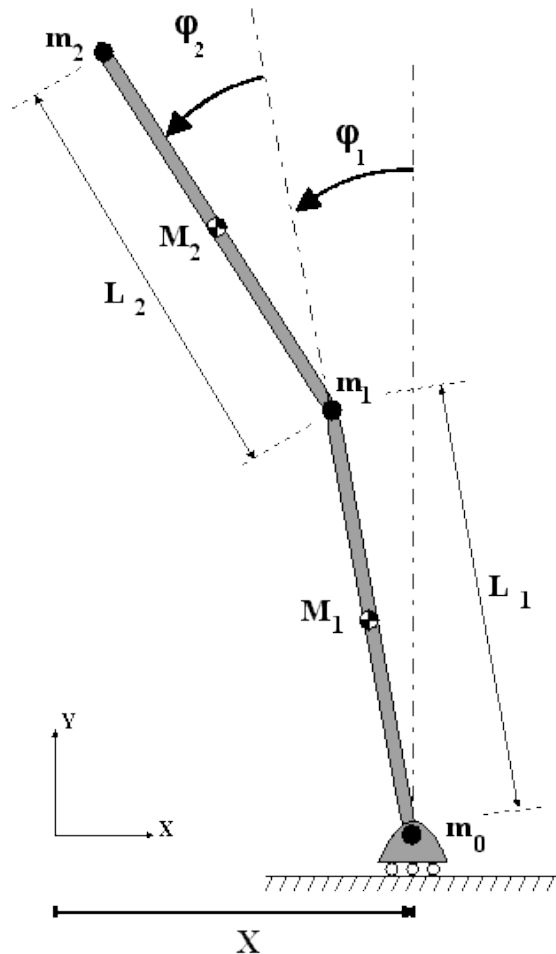


# Control Design

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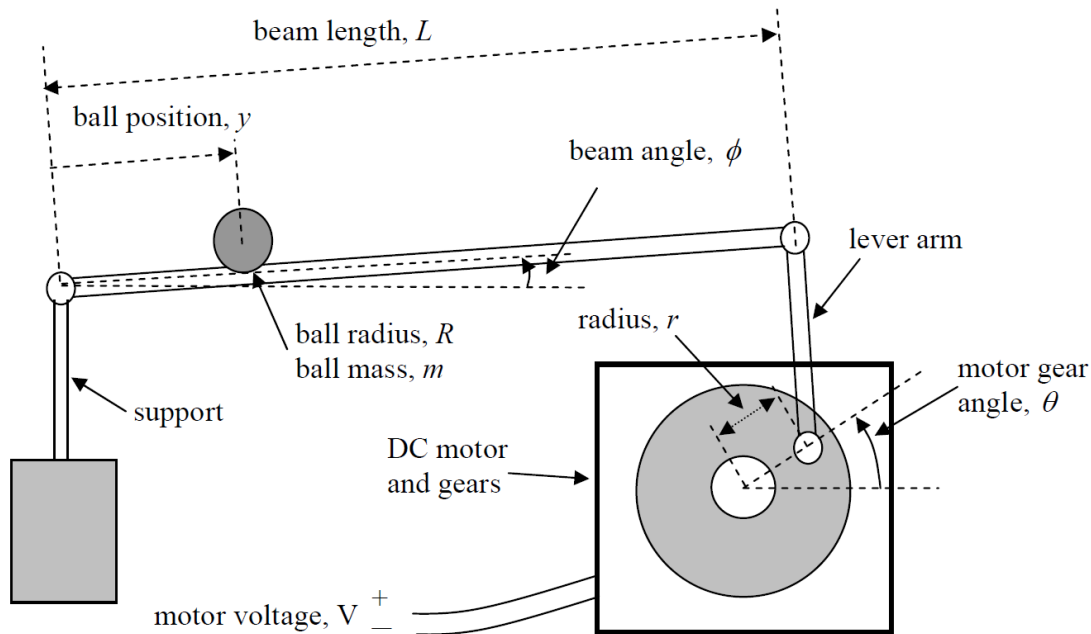
# Multivariable Control



In a Multivariable Control course taken in my fourth year, I designed and simulated controllers for the inverted pendulum.

Building up from a simple SISO system with a single inverted pendulum, to the MIMO system shown, both classical control theory and modern state-space methods were applied in design.

# SISO Digital Control



This project dealt with a classical control experiment where the objective was to position a ball on the beam by driving the gear motor angle appropriately. As shown in the diagram, the gear angle is driving the beam angle through a three bar mechanism.

Given a set of design constraints in a fourth year Digital Control course, a cascade control architecture was successfully implemented.