

Controls Project

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1 Abstract

The project for Controls will involve controlling a doubly inverted pendulum with a linear “cart”. The goals of this project are to

1. Linearize the system about the stability point and design a controller for it.
2. Determine the limits of the controller with respect to each state variable(in isolation)

In order to simplify the model, the mass of the pendulums will be assumed to be at the end of the rod, rather than in the middle as it would be for a constant density rod.

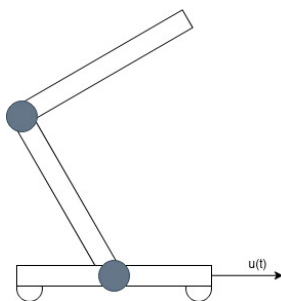


Figure 1: System to be modeled

2 Help Recieved

This section is a thank you for people who caught issues or otherwise helped(collaboration is allowed)

1. People will be listed here