EENG307: Course Introduction[1]
Lecture 1

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Feedback Control Overview

Let's take a look at a feedback control system for a set of solar panels tracking the sun as it moves across the sky:

https://www.youtube.com/watch?v=bE179wgm164

Some definitions

The subject of this course is feedback control of dynamic systems.

What are systems?

- A system is an interconnected subset of the universe!
- Example Systems:

Input and Output *Signals*

- By definition, we have to separate a system from the rest of the world
  - Input signals: connection variables that we will determine
  - Output signals: connection variables that we will observe, whether by predicting (using mathematical models) or measuring
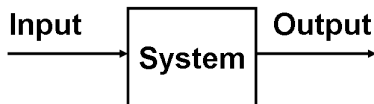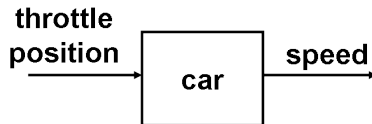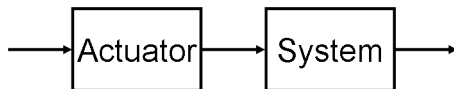
Static vs. Dynamic Systems
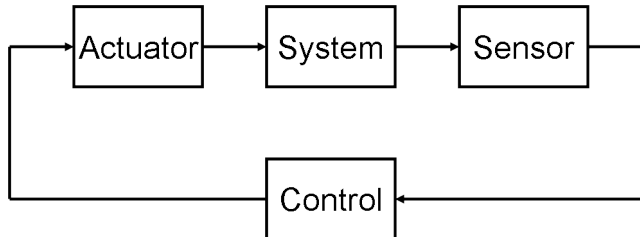
- Static System

- Dynamic System

- What is the difference?

Open vs. Closed-Loop Control Systems

- Open Loop System

- Closed Loop Control (Feedback Control)

Feedback Control Elements