Feedback: Formal Mechanism

Goal . . . describes a relationship
that a system desires to have
with its environment

is embodied in

input

output

a **Sensor** passes the current state value to a **Comparator** . . . . responds by driving an **Actuator**

. . . has
resolution – (Accuracy)
frequency – (Latency)
range – (Capacity)

subtracts
the current state value
from
the desired state value
to determine
the error

. . . has
resolution
frequency
range

System

is measured by

affects the

Environment

can affect the

Disturbances . . . may be characterized as certain types
typically falling within a known range;
but previously unseen types may emerge
and values may vary beyond a known range;
in such cases the system will fail
because it does not have requisite variety