



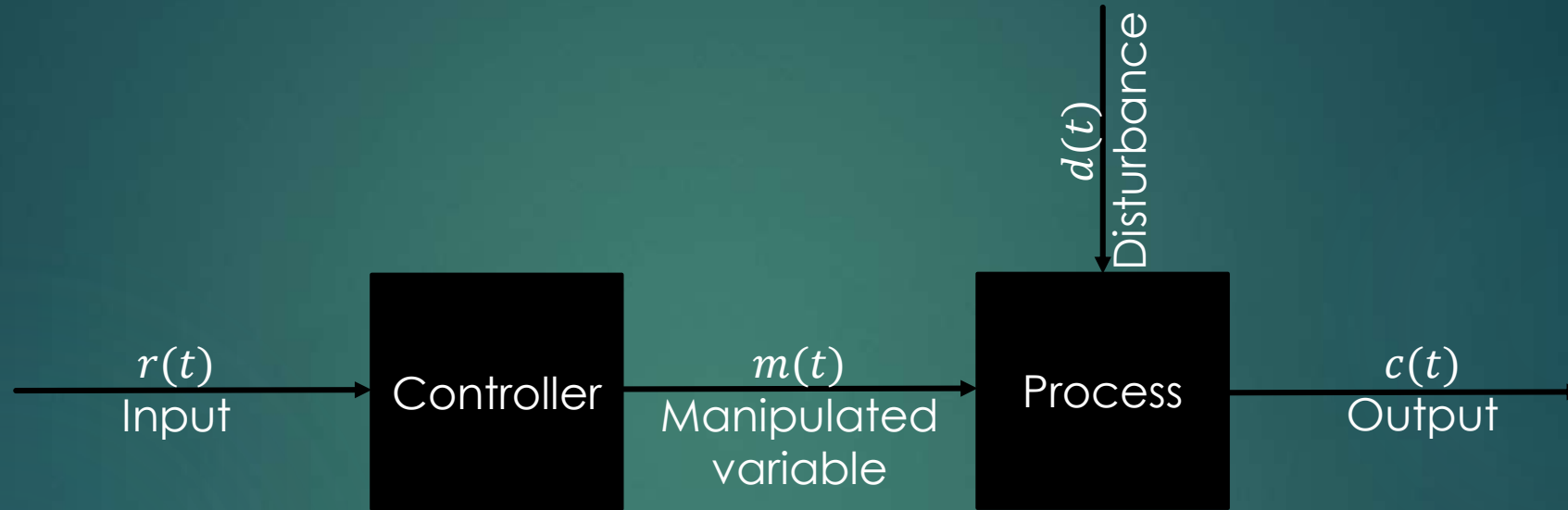
Computer Controlled Systems

CONTROL SYSTEMS

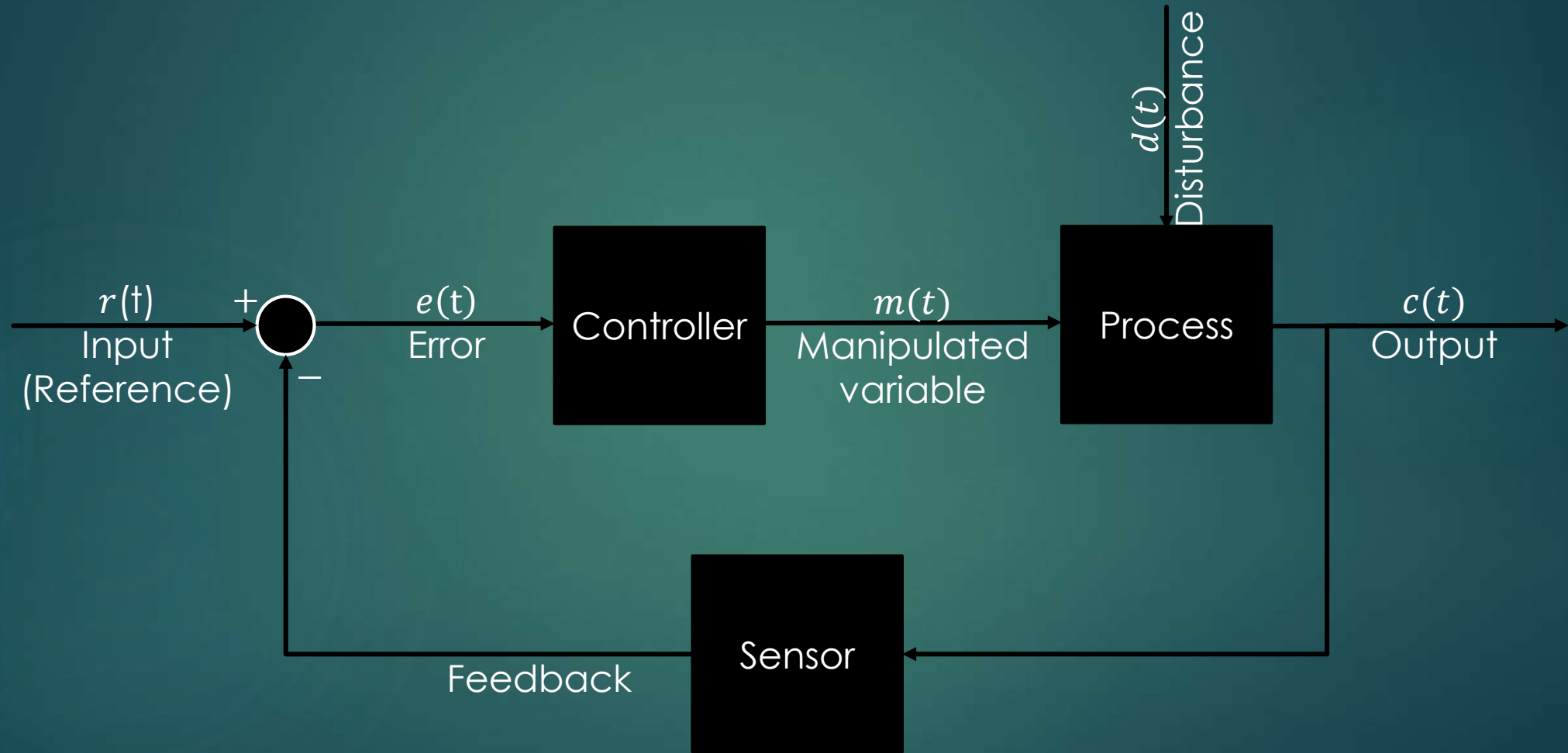
Control System



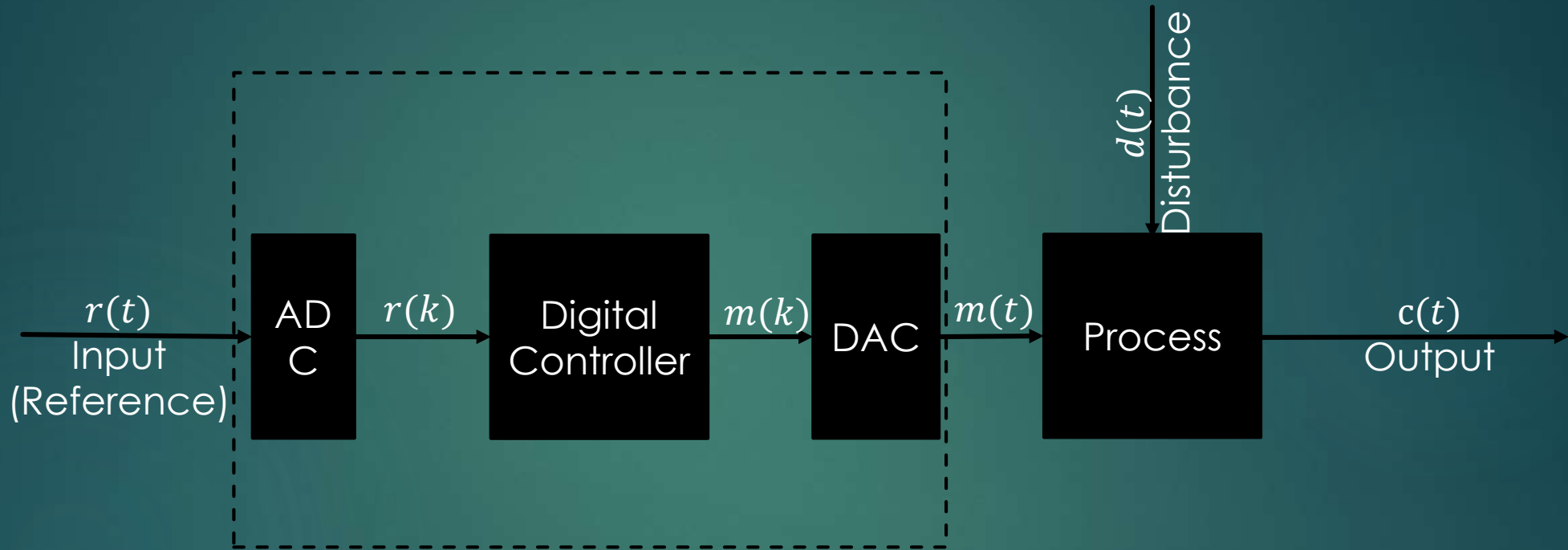
Open-loop Control System



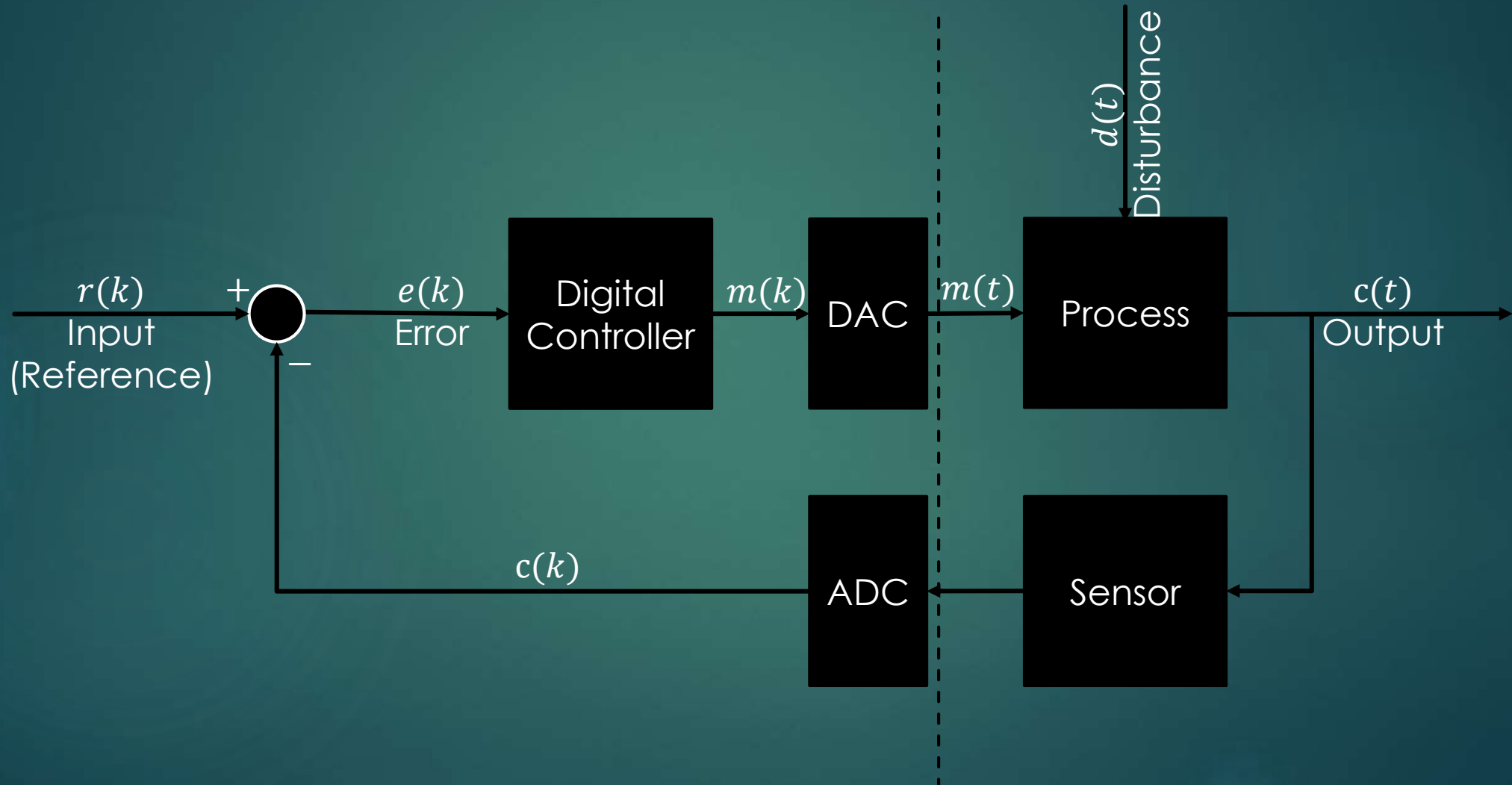
Closed-loop Control System



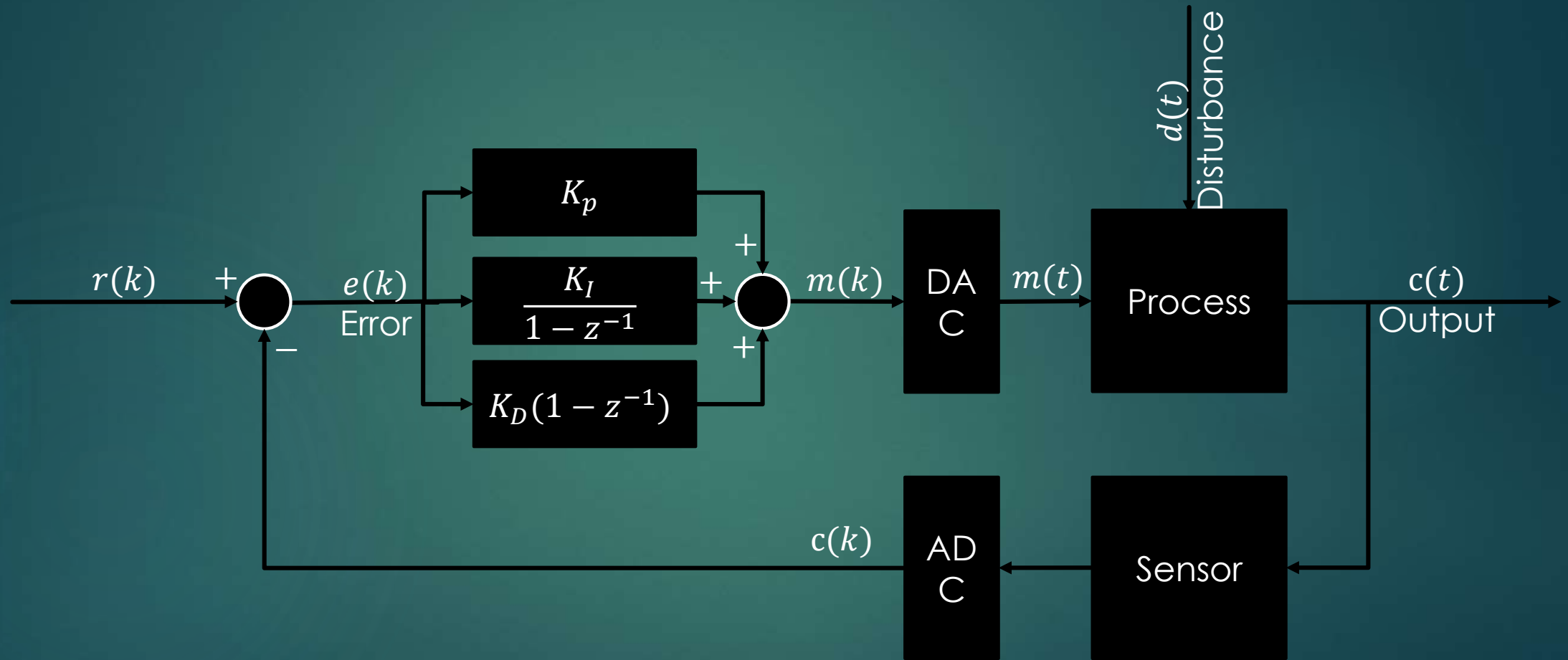
Open-loop Digital Control System



Closed-loop Digital Control System



PID Controller



Example Control Systems

- ▶ Fan
- ▶ Air-Conditioning
- ▶ Cruise Control
- ▶ Washing Machine
- ▶ Time-controlled Dryer
- ▶ Time-controlled Traffic Signal
- ▶ Moisture-controlled Dryer
- ▶ Camera-controlled Traffic Signal

Example Control Systems

Open

- ▶ Fan
- ▶ Washing Machine
- ▶ Time-controlled Dryer
- ▶ Time-controlled Traffic Signal

Closed

- ▶ Air-Conditioning
- ▶ Cruise Control
- ▶ Moisture-controlled Dryer
- ▶ Camera-controlled Traffic Signal

Quiz

Identify all components and signals of the following control systems:

- ▶ Air-Conditioning
- ▶ Cruise Control
- ▶ Moisture-controlled Dryer
- ▶ Camera-controlled Traffic Signal

Reading List

Sections 1.2 and 1.3

Non-academic Reading

