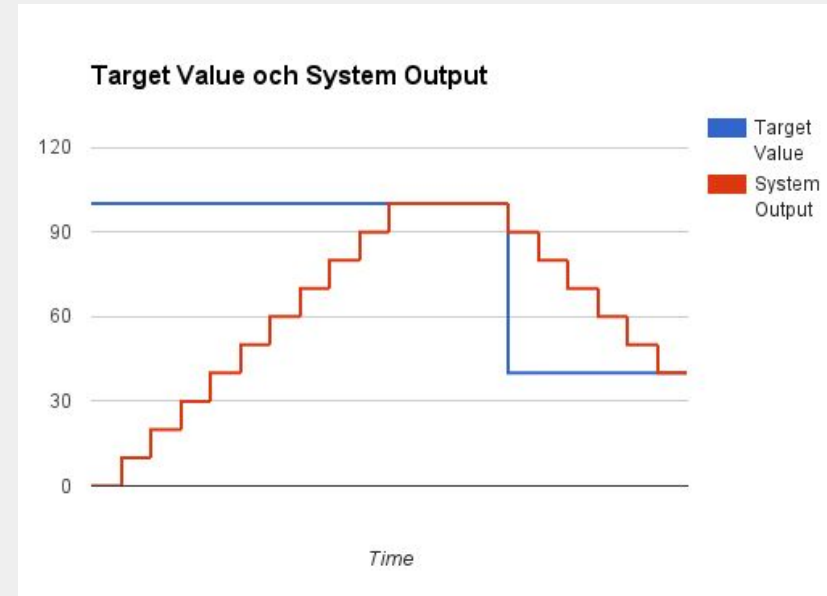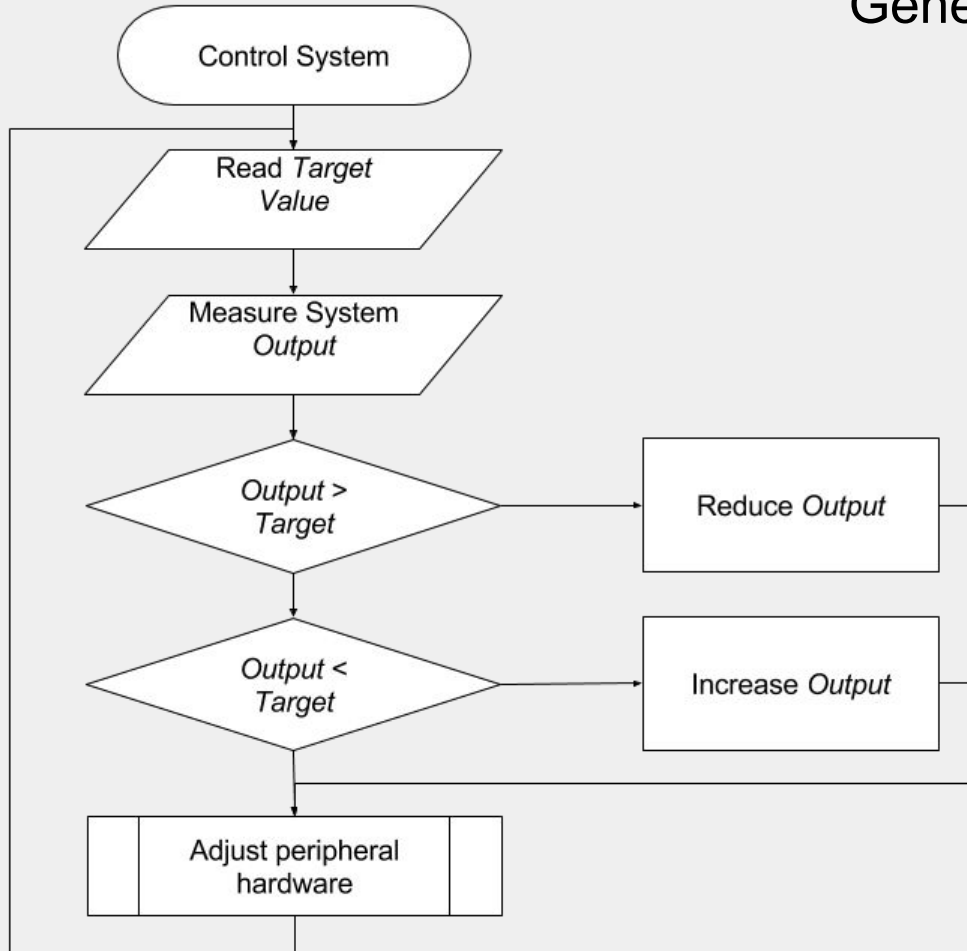# Automatic Control
LET085 Project

Andreas Johansson

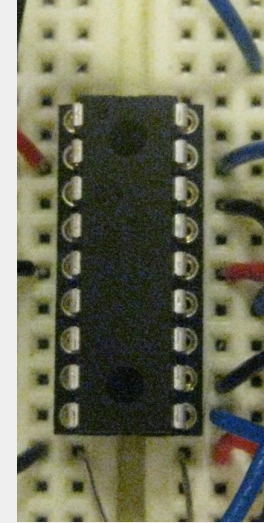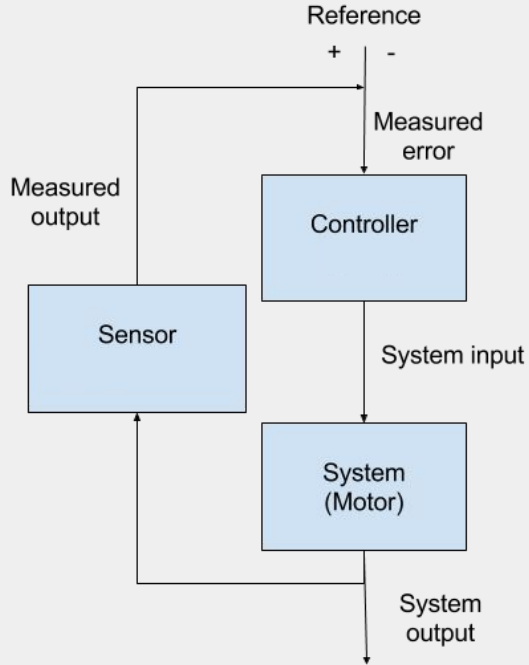John Croft

Outline

- Overview

- Implementation

- Results

General Overview

Flowchart:
- Control System
- Read *Target Value*
- Measure System *Output*
- *Output > Target* → Reduce *Output*
- *Output < Target* → Increase *Output*
- Adjust peripheral hardware

Target Value och System Output

Legend:
- Target Value
- System Output

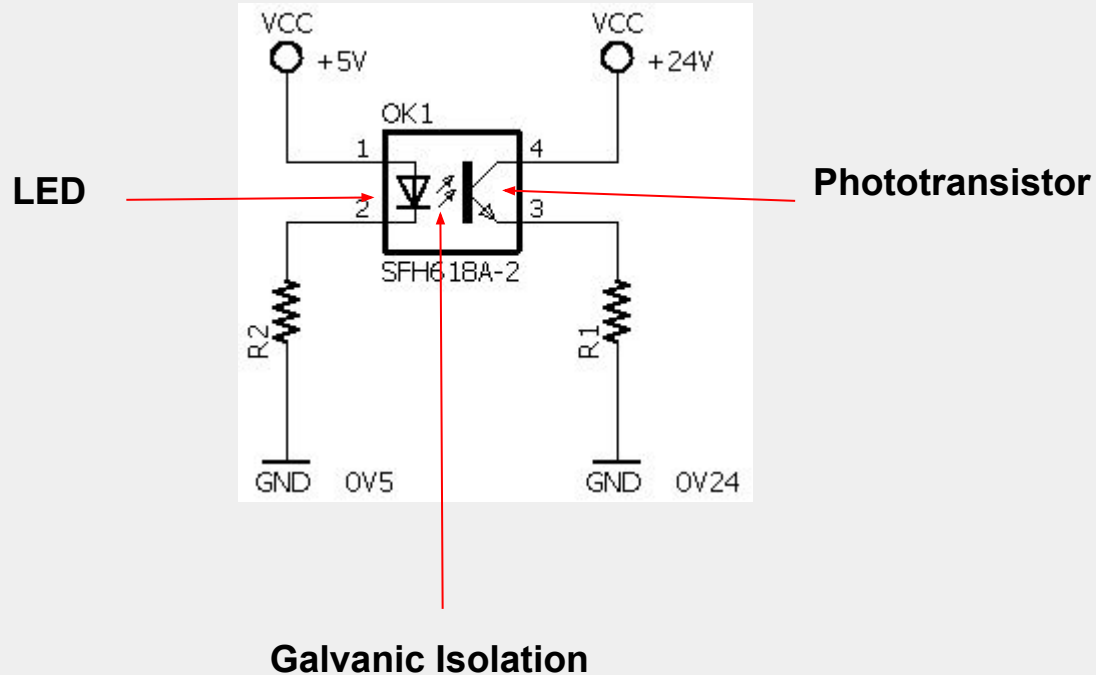Y-axis: 0, 30, 60, 90, 120
X-axis: *Time*

Implementation

Programmable Logic Controller
- Common in heavy industry
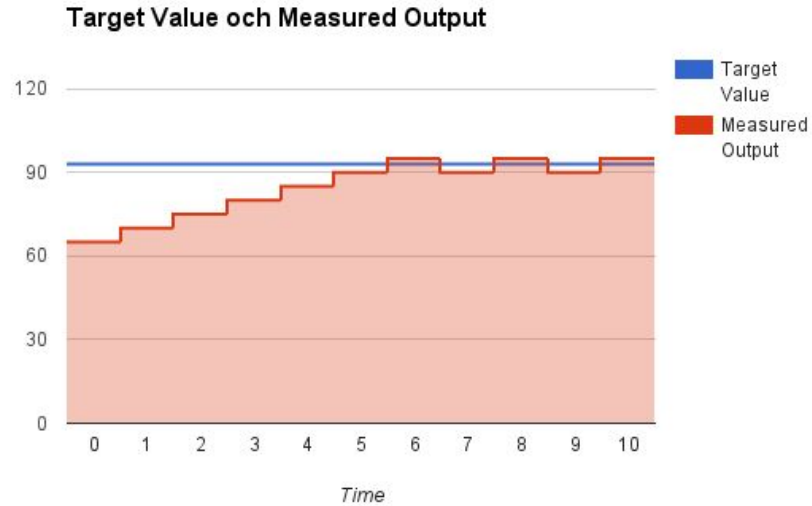- Electrically & physically robust
- Uses specialized programming languages

PIC16F1827 microcontroller
- Mass produced
- Electrically vulnerable
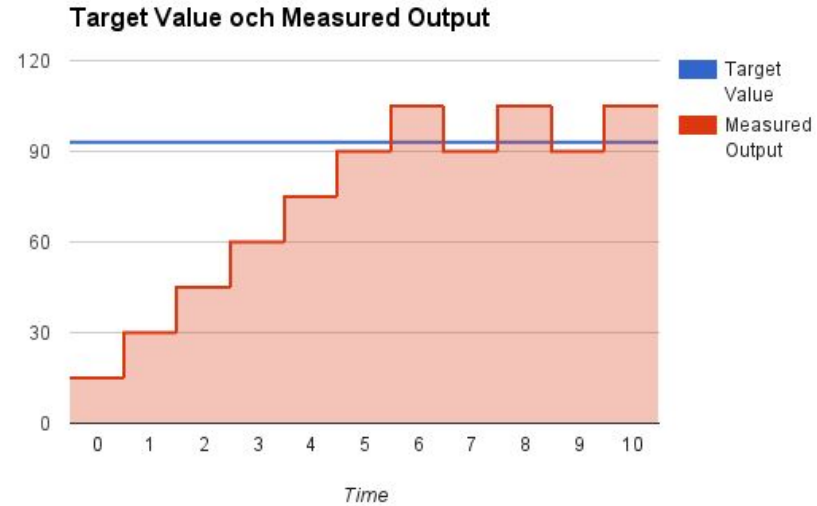- Compatible with common programming languages

Obstacles

Problems Encountered

Accurate but slow

Fast but innaccurate
Large oscillation around target

Results

- Responsiveness vs. accuracy

- Loose specifications = unclear requirements

Fin

Questions?