

PID Controller Design

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1 Introduction

This document describes the design of a

2 Motivations for micro-optimization

3 Description of micro-optimization

3.1 Post Multiply Normalization

3.2 Block Exponent

4 Integer optimizations

4.1 Conversion to fixed point

4.2 Small Constant Multiplications

5 Other optimizations

5.1 Low-level parallelism

5.2 Pipeline optimizations