FPGA implementation of Cooley-Tukey

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Overview

In this project we will implement the Cooley-Tukey FFT algorithm on a Xilinx FPGA using VHDL.

Theory

Describe the definitions of the DFT and the Cooley-Tukey FFT.

In Mathematica

Describe Mathematica code, how precomputed tables can help us.

FPGA considerations

Describe how we plan to utilize SPI for communication, what type of logical blocks we will use and how they will work together.

Block diagram

Insert GraphViz here

Roadmap

Describe the steps, in order, that need to be done.

Possible extensions

Describe the extra things we might add if we have time.