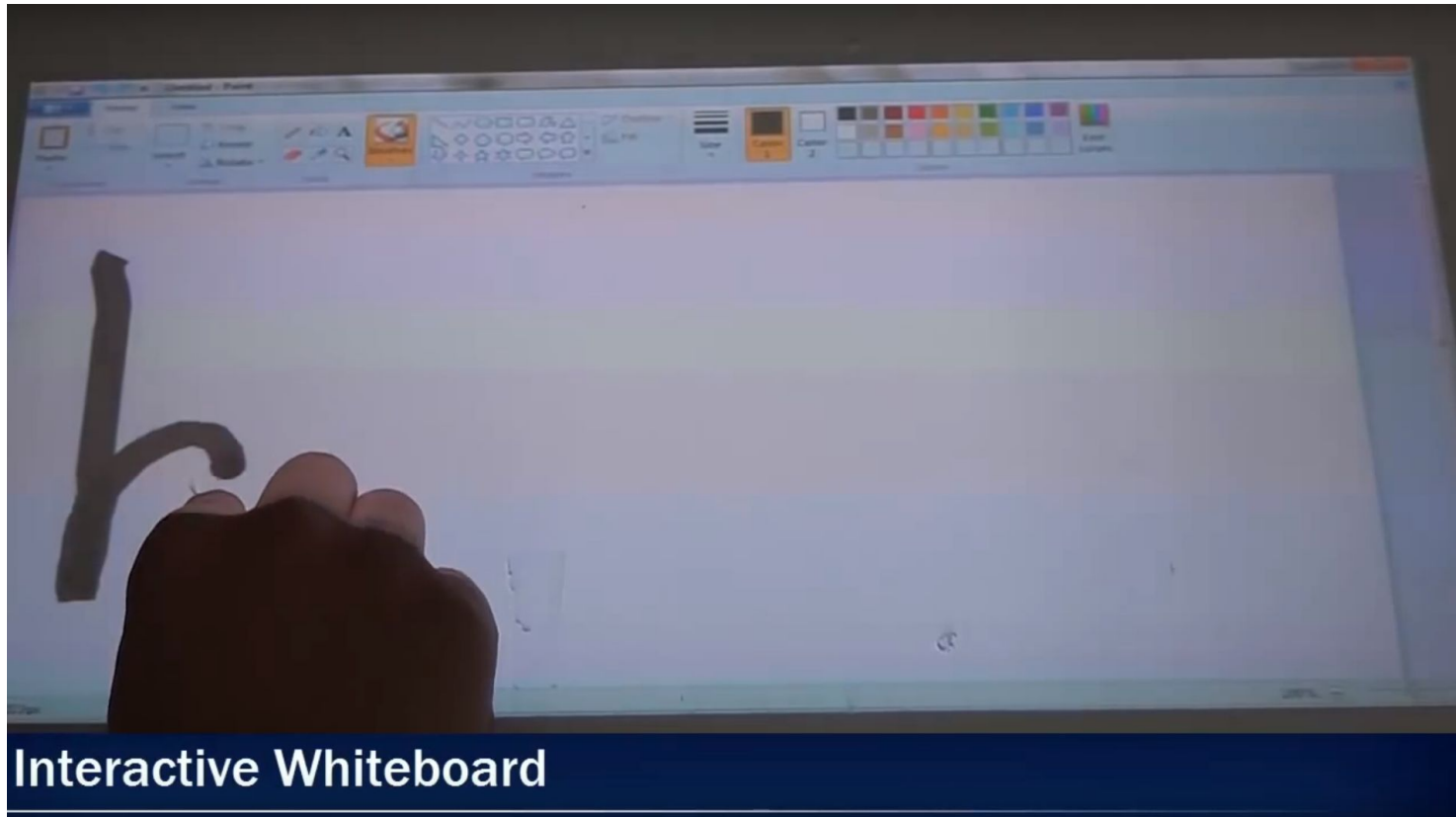# Touch Projector
6.111 Final Project

Alan Cheng, Hope Harrison
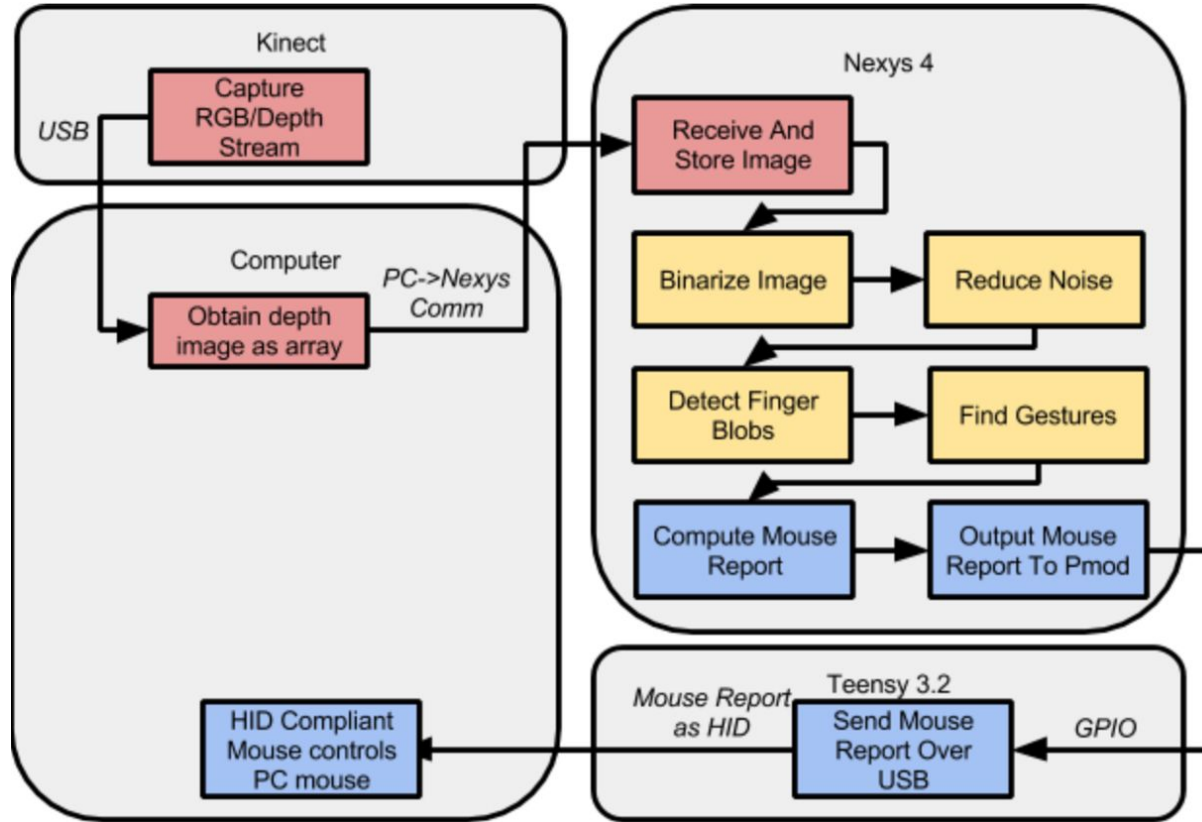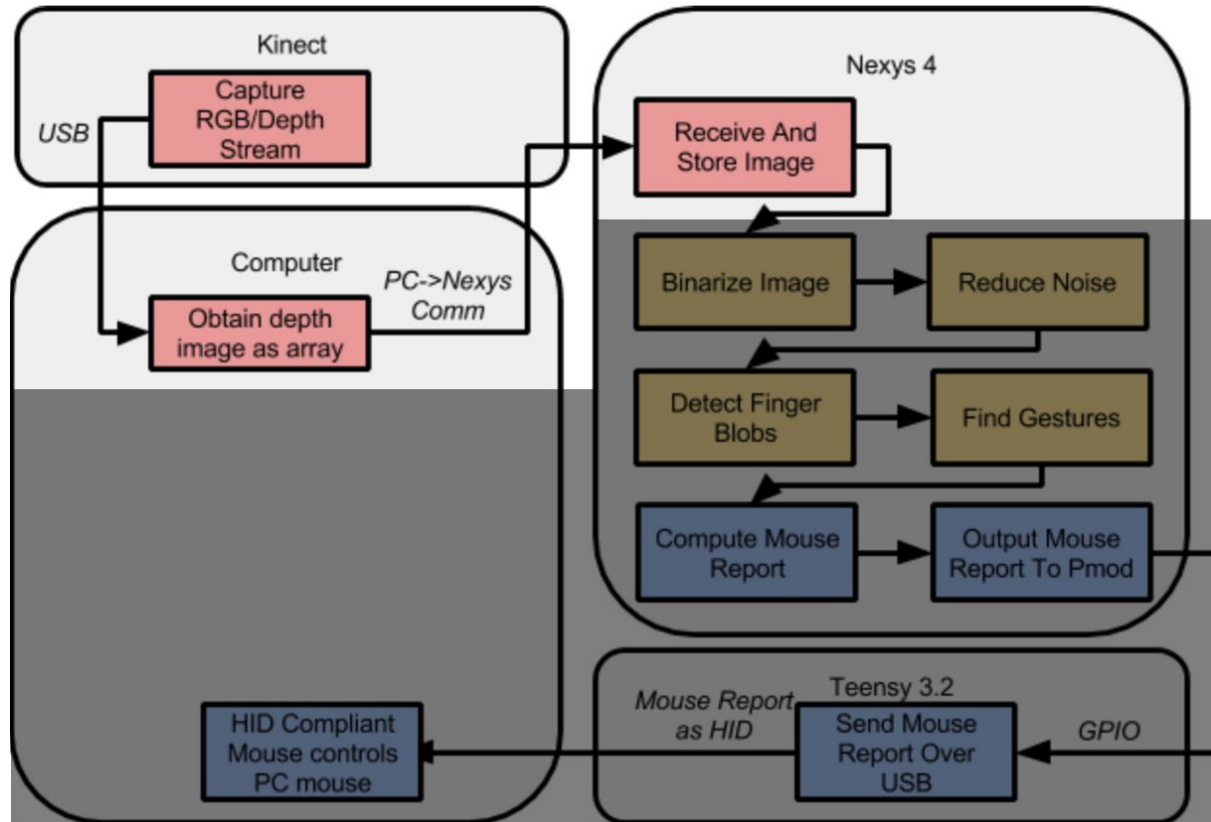
The Idea

Interactive Whiteboard

Key Components

- Key deliverable: Touch Projector
  - Responses to finger touch, hold, drag

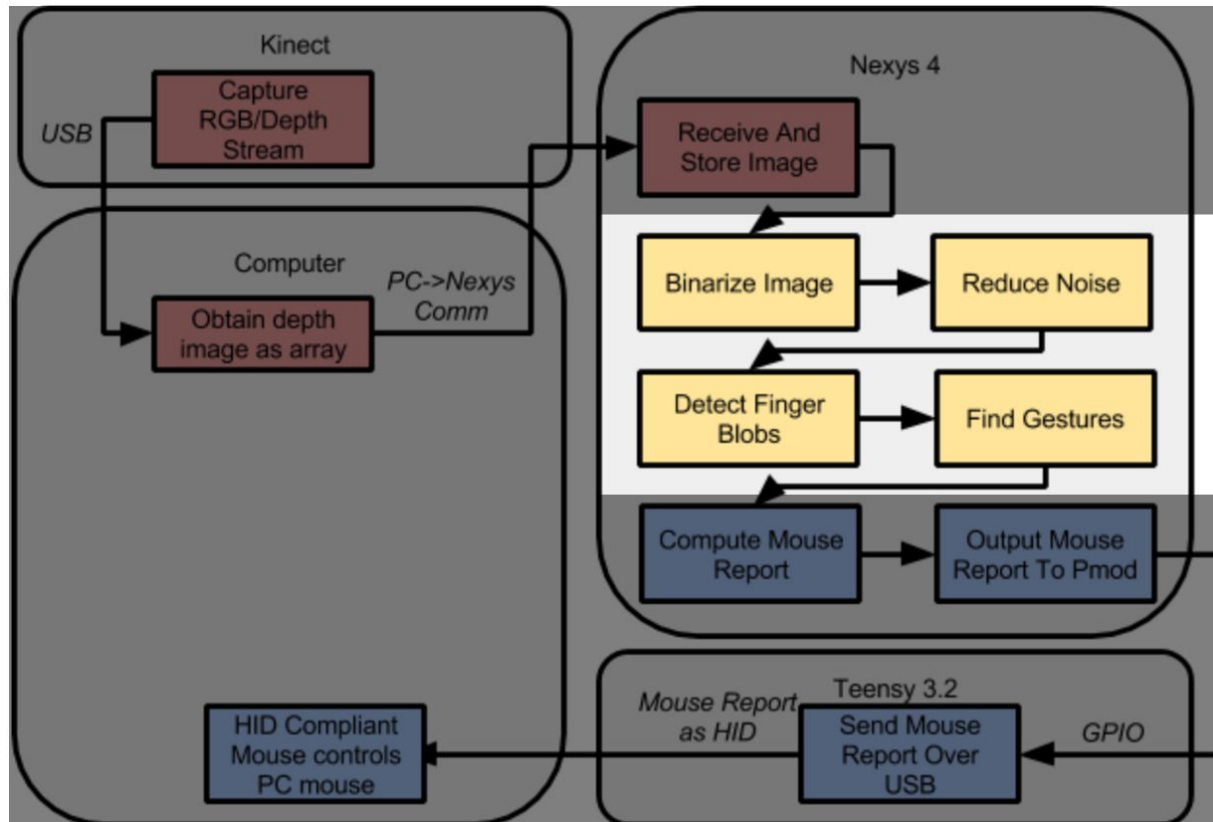- Target Performance: 30 fps

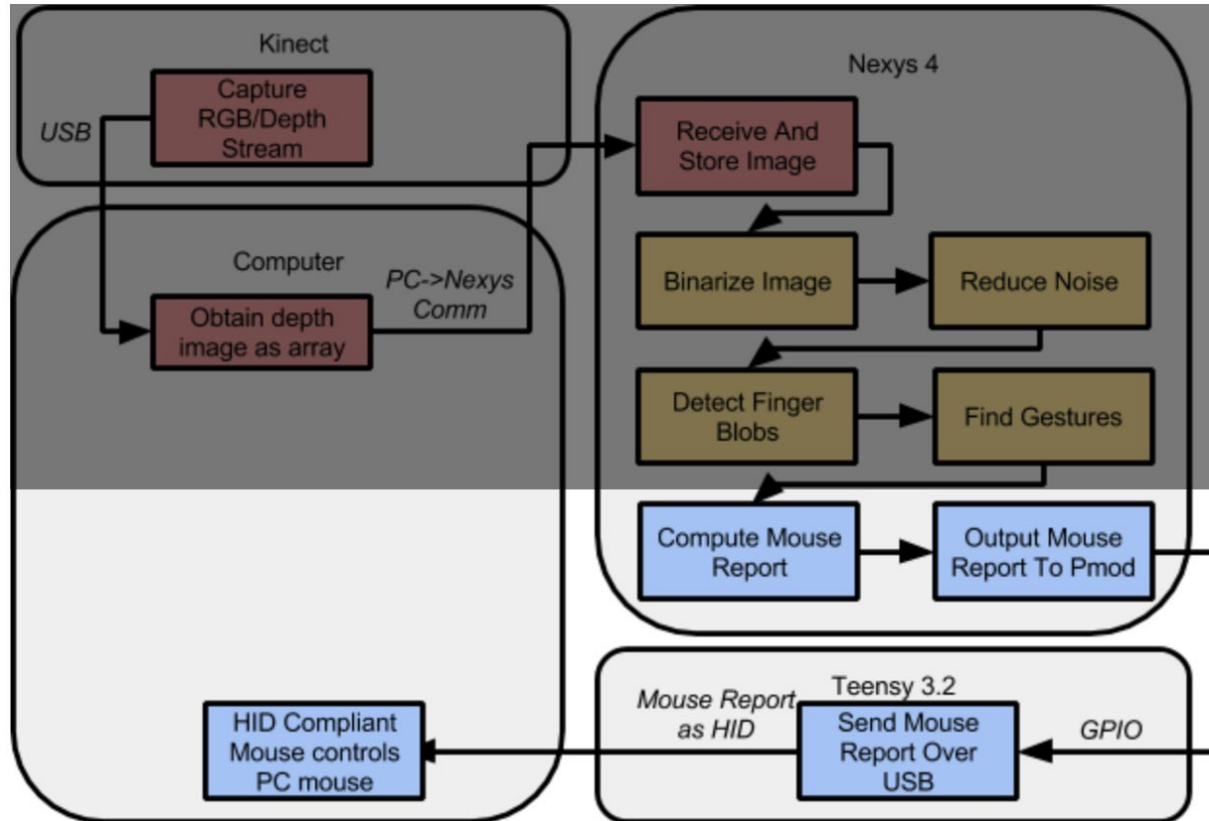- Auxiliary: Gesture recognition

System Design

Module 1:

Module 2:

Module 3:

Timeline

Date	Modules (Alan/Hope)	Test Milestone
11/11	Nexys & Teensy mouse connection	Nexys button press on FPGA to simulate click.
11/18	PC-FPGA connection	Nexys displays image it is receiving.
	Image processing of saved images on Nexys	Nexys displays thresholds on saved image.
11/25	Finger detection on saved image	Nexys displays finger position on saved image.
	Gesture detection from past finger locations.	Nexys display gestures from saved (simulated) finger positions.
12/2	Finger detection on image livestream	Nexys displays location of detected finger from live data.
	Integration of gesture detection	Nexys displays gestures from live data.
12/9	Integration and Final Testing	Working touch projector