Team Name: Micro Chicks

Team Members: Melissa Belleme Katey Pickard
The goal of this project is to build a colorful, interactive game that will help toddlers learn colors, numbers, letters, and shapes.
Project Objectives:

- Touch screen display for user interface
- PC interface to display the images
- A speaker that will vocally prompt the user with questions and respond to their input
- Games should be appropriate skill level for toddlers
Component Overview: Touch Screen

Purpose of Touch Screen: To provide a user interface for the game. All manipulation of the game will occur through the touchscreen.

Selected Component: The Cyclone II

How does it work?
• When layers are pressed together there is a change of electric current and a touch event is recorded by our controller.
Component Overview: Text-To-Speech (TTS) Chip

Purpose of TTS chip: To allow vocal commands and interaction from the game to the user.

Selected Component: DoubleTalk RC8650

How does it work?

- Uses serial communication with the microprocessor and converts received ASCII text to spoken English
- Has the option of a digital or analog output; the BabyMac will utilize the analog output through a speaker
- Also has internal memory and recording capabilities, as well as touchtone, musical, and sinusoidal tone generators
Component Overview:
PC Interface

Purpose of PC Interface: To display the images to the user.

*Not sure yet how to implement the PC interface. LabView is a possibility, but more discussion and research is needed. Ideally, PC memory would be used for image storage, and serial communication with the external Atmel processor would be desirable.