ShowKase Electronic Display Case

Overview
The goal of the project was to create a prototype for an electronic display case. The case was to have some sort of display, an LCD or E Ink display. This display would interface with an application on the phone to allow the user to set a color, image or pattern to change the design of the case.

Objectives
We created a simple, easy to use application for Android. We also created a functioning display with microcontroller to communicate with the phone and display images.

Approach
- Assessed the needs of the user and the sponsors initial requirements
- Did a lot of concept generation and selection of materials and platforms
  - We chose based on availability, compatibility and feasibility.
- Reviewed relevant patents and analyzed existing products/processes, etc.
- Met with sponsor several times to clarify requirements.
- Our final result was a prototype for the product to show proof of concept.
- Performed tests to ensure proper working of app, data transmission and functioning of display.
- We validated our results by testing and attempting to make it fail.

Outcomes
- Project seemed popular at showcase and had the potential to sell in the future if manufactured
- Manufacturing production time would be much shorter since we now have a functioning prototype with code.
- This product is the only one like it so far on the market.