Life Cycle of a Disposable Camera

Team 1

Nick F, Stephen T, Kyle D, Peter M

2 July 2013

A. Functional Components
   a. Lens
   b. Shutter Mechanism
   c. Film
   d. Viewfinder
   e. Film Transport and counter mechanism
   f. Electronic flash
   g. Energy cell
   h. Housing and Frame

B. The parts are arranged in a specific order so that they work together properly. The film is unreeled behind the lens and the shutter is quickly released when the trigger is pulled. This exposes enough light for the picture to be capture.

C. The materials used were plastic for the small inner parts. The circuit board is a plastic base plated with a metal alloy to carry the current. The casing and frame are both also made of plastic.

D. Recycled – all the plastic pars such as the casing, frame, lens, gears for flash
   Reused – springs, circuit board, all parts in perfect condition.

Identify an item in the Camera System’s Life Cycle that you wish to investigate in more detail.

Item identified: Lens

- **Where it is**
  - The lens exists in all forms of the life cycle. It is always part of the camera until the camera itself is recycled or reused. If recycled, the lens will be manufactured.

- **How it’s manufactured**
  - The lens is manufactured with compact plastics that can be easily molded to satisfy any design.

- **How it’s recycled**
  - The lens will be tested for quality during disassembly. Then it will either be reused or placed in material recycling.

- **Why it was made this way**
  - Plastic is cheap and reusable. If the lens were to break or not function properly, it could easily be melted down and used as something else.
A possible redesign would involve using less plastic in order to be more “eco-friendly.” A way to do this would be to make the camera itself smaller, requiring a smaller lens that’s made with less plastic.
Cycle of Disposable Camera and Film

- Crank Wheel
  - Film put in place
  - Electricity from battery is charged into circuit

- Hold Flash charge button
  - Aim by looking through view-finder lens
  - Flash is released
  - Circuit is discharged

- Capture image by pressing shutter button at top corner
  - Simultaneously

- Image is translated on to film

- Film is developed by professional

- Camera is recycled, cleaned, and resold.

- Developed images are returned to consumer.

1 hour wait