Disassembly and Study of a Single Use Camera

Functional Components:
Part- Function:

1. Front Cover (Plastic) - To house the internal components.
2. Back Cover (Plastic) - To house the internal components.
3. Battery Cover (Plastic) – To hold the battery in place.
4. Film and Circuit board Chassis (Plastic) – To house the film, circuit board, and mechanical components.
5. Film Wheel (Plastic) – To pull the film in front of the lens.
6. Film Cover (Plastic) – To hold the film in place.
7. Button Mechanism (Plastic) – To activate the mechanical components.
8. Shutter (Plastic) – To momentarily expose the film.
9. Shutter Trigger (Plastic) – To open the shutter.
10. Film Winder (Plastic) – To manually ready the shutter mechanism.
11. Film Counter (Plastic) – To show the user the number of remaining pictures available.
12. Shutter Housing (Plastic) - To hold the shutter and move it back into place via a steel spring.
13. Film Advancer (Plastic) – To pull the film along.
14. Spring (Steel) – To store energy needed to operate the shutter.
15. View Finder Lenses (Plastic) – To view the image desired by the user.
16. Lens (Plastic) – To capture the photo image.
17. Circuit Board (Plastic and Copper) - To power the camera’s flash function.
Reusable Parts

According to Kodak, approximately 77% of the components in this single use camera are recyclable, excluding of course the battery and film. That means that all of the plastic housings, lenses, and mechanical pieces like the shutter, winding gears, and springs can be reused or refurnished upon inspection for use in new cameras. Even the cardboard packaging can be recycled if the consumers chooses to do so. Today, about 1.5 billion disposable cameras have been recycled, reducing waste and costs to both consumers and manufacturers.

Redesign

Because the vast majority of components are reusable, it is difficult to think of other parts that could be reused. The main pieces that cannot be recycled are the battery and the film. The film obviously cannot be reused, but a different power source like a photocell would reduce energy usage and waste of the battery, which contains corrosive chemicals. Other than that, the best way to reduce material use and waste would simply be to reduce the amount of material used. Any reduction in plastic usage would make a huge difference, especially compounded over billions of cameras.