Disassembly of a Single Use Camera

We deconstructed a Kodak Single Use Film camera. All of the parts were disassembled easily into their individual components, but putting the camera back together did pose some difficulties.

**Housing and Internal Frame** – This structure is made of three parts which are all composed of soft, lightweight plastic. The pieces are all constructed so that they can snap together to provide a structure for the components within. These reinforcement structures protect the film from light exposure and also provide durability and safety for the user. The components of the shell are most likely reusable for future cameras until signs of wear are evident, which would lead to recycling.

**Energy Cell** – The energy cell consists of three main parts: the circuit board, the battery, and the capacitor. These parts mainly function in producing the camera’s flash. The battery provides the capacitor with electricity, which stores energy to produce a flash. This energy travels across board to the bulb in order to form the flash. These components are primarily made up of plastic, heavily insulated wires, and various conductive metals. After use, the battery and the circuit board can be used in future cameras, but the capacitor may only have certain parts that can be recycled. The battery can be used many times since it can be recharged.

**Viewfinder** – The viewfinder is a single, clear plastic piece that is magnified in the middle. The shape of the viewfinder shows the user an approximate view of the image that they are capturing. As long as the viewfinder remains unscathed, it can be reused in future cameras many times before it is recycled into raw material.
Film/Film Transport – Film is composed of a polyester-based polymer. The different gears and film holder are made of plastic. These gears are designed to rotate the film canister after a photo is taken so that new film is ready to be exposed to the light. As light makes contact with the film, a reaction occurs that copies the negative colors onto the film, producing photos. These pieces are easy to pull in and out of the camera to make for efficient film development. The gears are most likely reused in future cameras, but the film can only be used one time before it is given to the user with the developed photos.

Lens – The lens is a relatively simple structure that consists of a plastic, convex lens that magnifies the image, and also a plastic covering to house it. The function of the lens is to sharpen and magnify the image that will be taken. The two pieces fit together very easily, but they are not extremely durable. As long as the pieces are intact after use, they can easily fit into future cameras to be reused.

Shutter System – Multiple plastic components make up the shutter system, but since this is an older version of the camera, the actual shutter is a piece of thin, lightweight metal. When the button is pressed to take a photo, the mechanisms work together to reset the camera for the next frame. The structures all interlace without difficulty. However, fitting these pieces while putting the camera back together was difficult.
f. Viewfinder

This part is relatively early in its life cycle. It shows little sign of wear. It is made by pouring plastic into a mold and allowing it to harden. When the camera is disassembled to extract the film, this part can be taken and used fully in another camera provided that there isn’t any major damage to it. It was made as a single piece using a mold and designed to be recyclable to cut down on production costs. The same simple part can be reused over and over again in different cameras, and when it does wear out, it can be melted down, and the plastic can be molded into a new viewfinder. The viewfinder could be molded from a sturdier plastic so it doesn’t scratch easily. This would allow it to be used for a very long time before it needs to be replaced. The part that the user looks through could also be shaped differently to better magnify light thus making it easier to focus on far away objects.