Disassembly and Study of a Single-use Camera

Special features:

- Disposable
- Cost: $5-6 with processing at $10

Packaging:

- Comes in cardboard box missing the two ends at the top and bottom
- Plastic outer layer with aluminum on the inside
  - Protect camera from x-rays when going internationally
- Packaged in Mexico

Instructions:

- Just symbols on simply what to do
- Recommended distance for taking pictures
- Other symbols:
  - Do not open
  - Do not dispose ➔ trash
  - Keep away from radiation
  - Do not get wet
  - Keep out of the sun for long periods of time

Parts of the camera

- Plastic clasps:
  - Joining method, easy to open without damage
- Shutter:
  - Spring loaded when you press the trigger
  - How it works: wind the film press the trigger, opens the lens for a quick second and allows the light to come into the chamber and engrave the film.
Follow up questions:

A:

B: How the Camera Works:

After it’s open and ready, the plastic gear needs to be wound until it can’t anymore. At that point the film has been turned to a new part and is ready to be engraved. Next the flash button needs to be held until the red light shows up by the viewfinder showing it is ready. At this point the camera is ready to take the picture. Press down the trigger so that the shutter quickly opens and then closes once the image is on the film. After the film is full you take it to CVS to get it developed.

C: Materials used for the parts and assembly/disassembly:

The materials are all made with the same plastic so that it is nice and easy for recycling. The camera is put together pretty simply so that it can pull apart quickly and easily. After you remove the circuit board everything is the same plastic and is ready for recycling,
Dissassembly:

- Take sticker off
- Pull all tabs apart so that the front and back pull apart
- Remove back, film, front cover and battery
- Turn wheel above frame to discharge
- Slowly remove parts until just the frame remains

*assembly goes the opposite way*

Hopefully no parts were broken in disassembly

D: Systems

E: Which parts are reused and which parts are recycled:

The outer plastic shell and inner frame can be melted down and made into the new cameras multiple times. The battery can also be reused as we investigated in the battery performance test that it can be used for over 300 flashes. The circuit board contains metals that can be reused into new electronics and other metals.
While taking the camera apart, we thought of a couple things that would make it “better”. We all thought that if we reduced the size of the camera by just a little, it would take less plastic to produce it. Therefore, it would be cheaper for the consumer to purchase, yet still safe for the environment. In addition to reduce waste, we would take off the “flashy” yellow and red sticker, making it less wasteful to produce, and more easy to recycle.