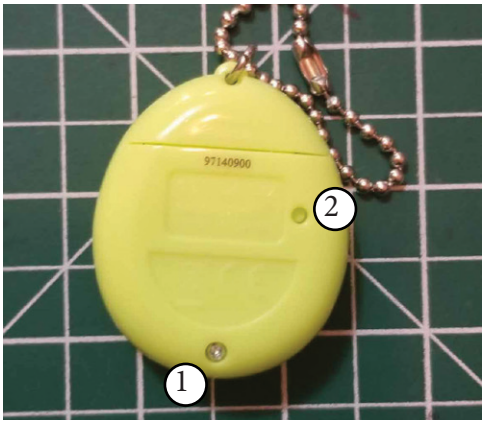
TAMAGOTCHI TEARDOWN

To start off the is a panel on the back held on with one screw (1, Right). On that back panel there is a small button which is to reset the device (2, Right).

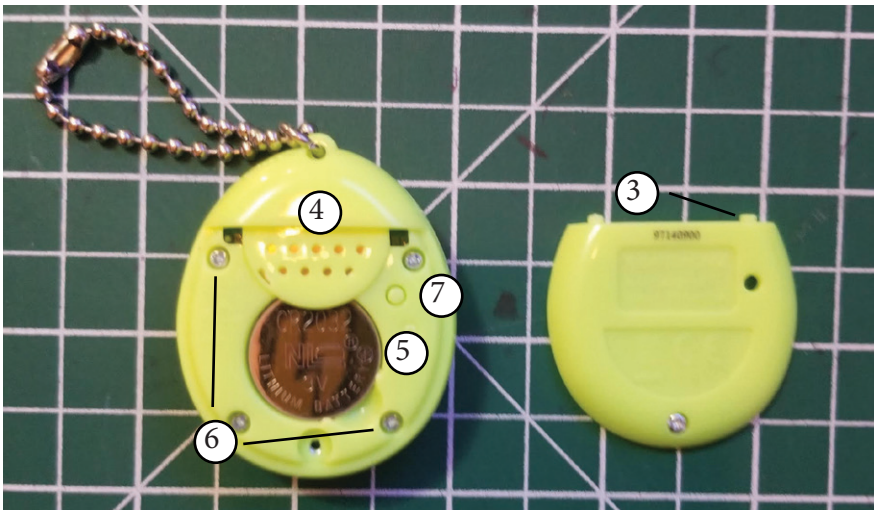
With the panel off we can see that it was also held in place using tabs that slot into the main body (3, Below).

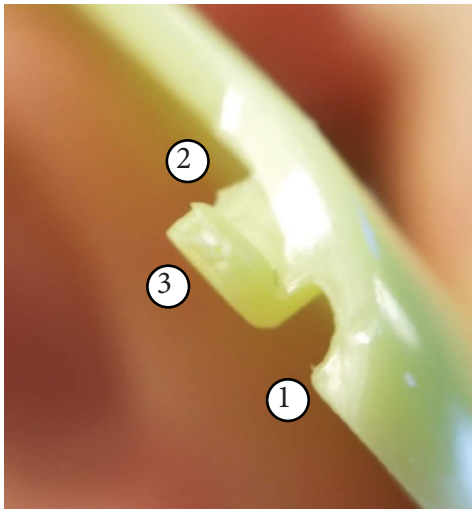


Behind that panel we can see an array of holes for the piezoelectric buzzer (4, Right) as well as the battery (5, Right).

Additionally the back panel is held on by four philips head screws (6, Right) , and we can see the previously mentioned reset button (7, Right) poking through the panel.

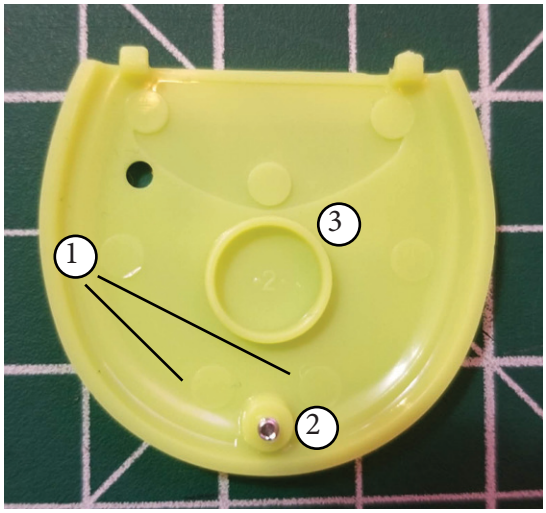
As for the cover panel, it's hard to see, but the parting line is hidden along the edge of panel (1, Below).





In addition to the parting line we can also see some flash around the edge (2), confirming this parting line

Along with this there is what appears to be an artifact from possibly where a spru was attached (3).



On the inside on the cover panel there are several ejector pin marks (1), as well as a boss for the screw that holds it on (2).

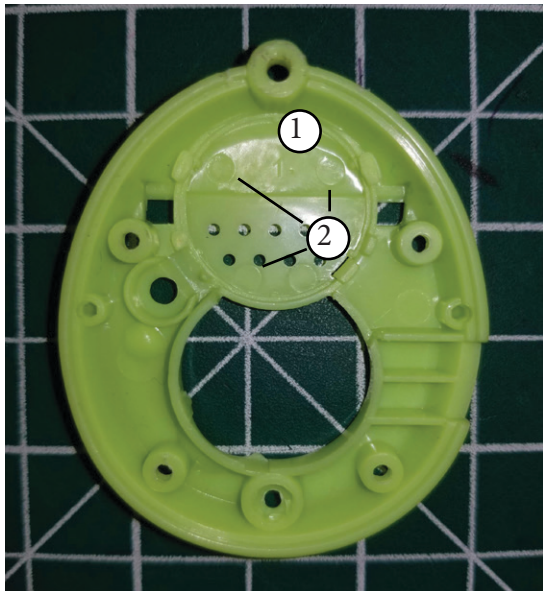
In the center of the panel there is a raised ring (3), which presses on the back of the battery and holds it in place when closed.

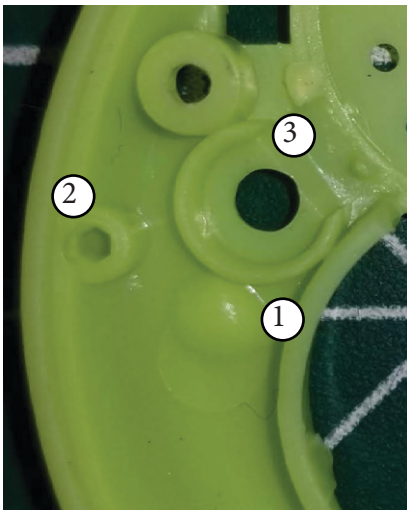
Within that ring there is the number 2 embossed on the surface (1), along with 3 small dots.

While I am not certain, I assume the purpose of the number is simple organiztion/ differentiating as there is a number 1 on the back casing.

Taking the back casing off, we are greeted by the heart of that piezo (1, Left), the battery (2, Left), and a small nut press fit into the casing (3, Left).

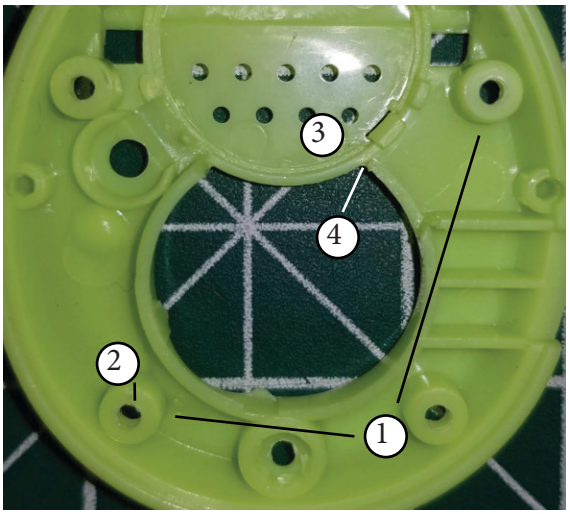
Getting those out we can see a multitude of feature cramed into a small space. Firstly a similar number as on the cover (1, Right), and several ejector pin marks (2, Right).





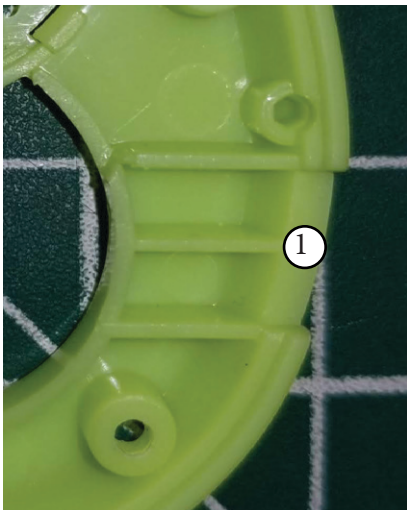
Here we can see a buldge on the backside of the gate where the plastic was injected (1). The frontside of the gate is pictured below.

We can also see a small boss for an alignment pin (2), and a raised section for housing the reset button cap (3), along with the hole it peeks through.



On the back here we can see several bosses for the screws that hold the casing together (1), within these we can see some flash (2). Surrounding the array of holes there is a small ridge (3), which holds the metal panel that makes up the piezo.

Once again the parting line is disguised along the edge of the casing, and can be better seen along the bottom edge around the hole for the batter (4).

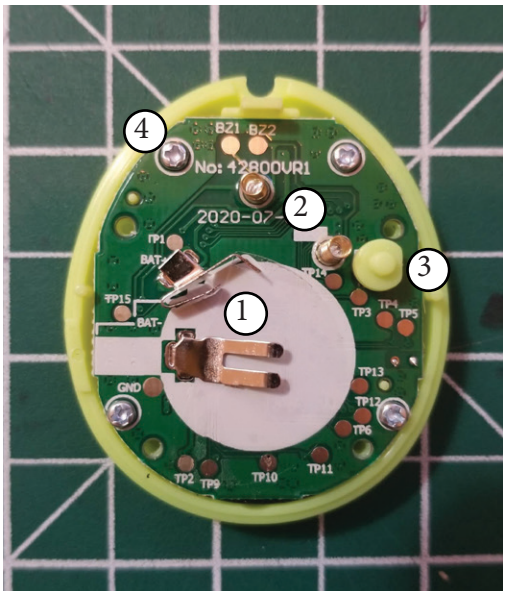


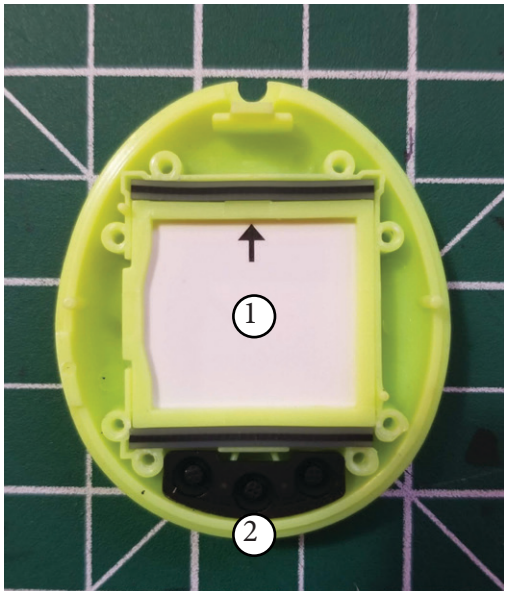
These ribs (1) are less for structural support, mainly they create a channel through which a small paper tab is inserted during manufacturing, preventing the battery contacting the terminals.

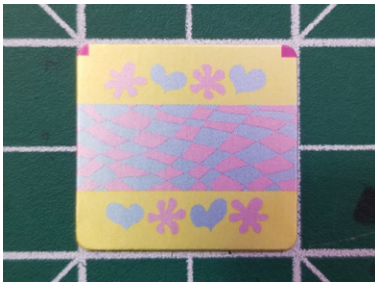
As this is a product that doesnt turn on/off, its important that it remains unpowered until the user opens up the packaging and starts it up for the first time.

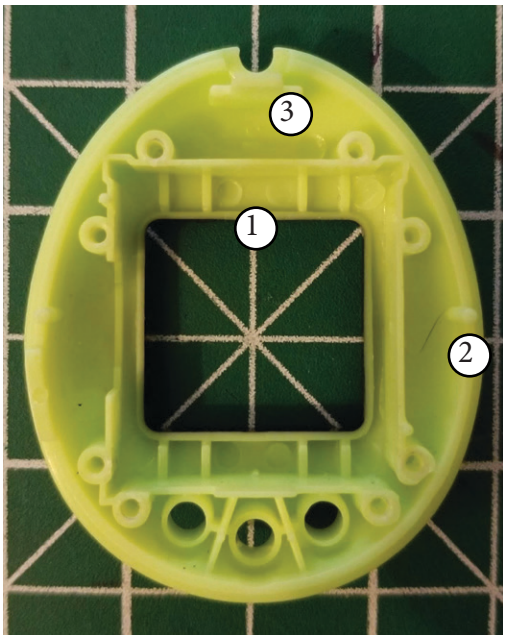
Perhaps the most interesting piece of engineering is the clip that holds the piezo in place. (Pictured Left)

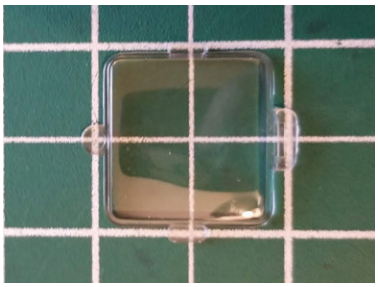
The clip has a bit of an overhang, which could prove to be an issue if not handled carefully. To deal with the overhang the designer created a small hole through which the tooling could pass straight through and create that overhang, allowing for the undercut without the need of any side-action.









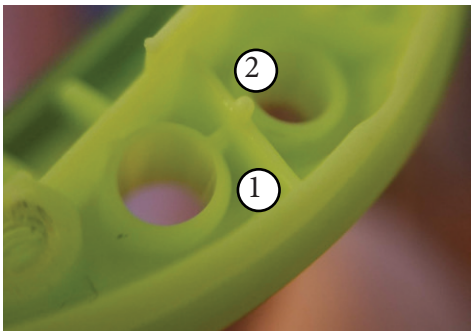


Taking off the back casing you are first greeted by the circuit board, on there you can see the battery terminals (1, U Left), the springs that serve as adaptable connections to the piezo (2, U Left), and the button cap for the reset button (3, U Left).

Removing the 4 screws (4, U Left), the board can be removed showing the screen assembly (1, Above) and the button caps for the input buttons (2, Above).

In descending order along the right are the components of the screen assembly. The LCD screen, the slightly reflective paper backdrop, and the screen cover, which is likely acrylic but with no markings it is difficult to know for sure.

Like the other parts, the parting line is hidden along the edge, we can also see several ejector pin marks (1, Left), and the alignment pins previously referenced (2, Left). Additionally, there is another marking like the 1 and 2 on the previous 2 parts. I am unable to determine what exactly it says, however it appears to be a backwards 2 (3, Left).

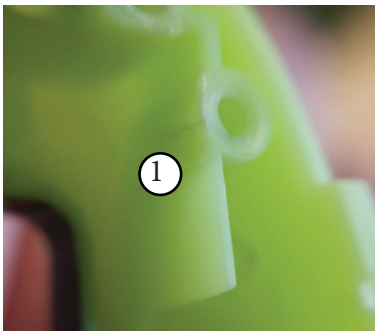


Here we see the holes for the silicone button caps to passthrough. Notably there are ribs (1), and alignment pins for the button cap piece (2).

Just out of frame there is also so flash surround the bosses for the screws, which can be seen in the full view picture above this one.

The screen assembly. Due to battery considerations, the screen does not have a backlight. While design wise this is an understandable choice, it makes it extremely difficult to see.

The semi reflective backdrop helps to bring more light into the equation, making the screen visible in well lit environments.



There are some markings on some of these similar spots. I initially thought they were weld lines (1), but considering the way the molten plastic would flow that seems unlikely. My current best assumption is that they are possibly stress marks from the screw being turned into the bosses.

Additionally there appears to be some sink marks in the same location.