



# Reborn 重塑新生

AI Gamification × Eco-Friendly Plastic Bags –  
Redefining Your Plastic Reduction Lifestyle

## Motivation

To tackle Taiwan's plastic and coffee waste, we created an eco-friendly bioplastic bag. By integrating AI recognition and a virtual pet system, our product turns recycling into a fun, interactive experience—driving green consumption and sustainable habits.

## Product introduction

### Hardware – Plastic Bag Design

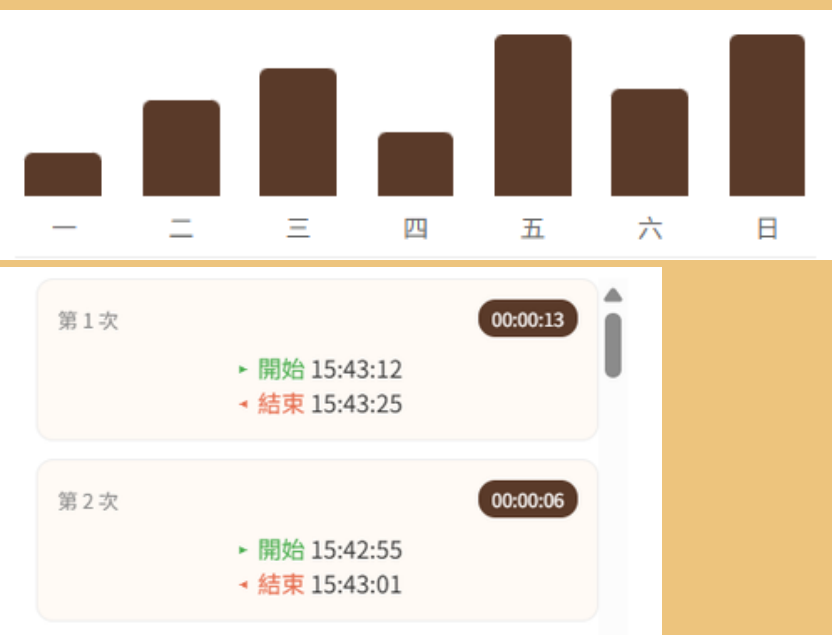


An integrated and snap-fit design is adopted to reduce stitching and extra materials, effectively minimizing plastic waste at the source.



## Software Operation

1



Without disrupting daily habits, the system automatically logs data via smartphone NFC sensing.



- Smartphones trigger API requests via NFC sensing.
- Flask handles incoming frontend sensing signals.
- Supabase queries in-progress and completed data.

2

回收知識大挑戰

物品可應是: 智慧型手機  
物品材質: 金屬

Q: 手機內部含有玻璃、金屬、塑膠等多種材質，當手機故障無法使用時，根據台灣環保署的官方規定，我們應該如何回收它？

(A) 將手機保持完整，交給回收業者或指定回收點，讓貴族物品管理回收。  
(B) 先小心取出手機電池，將電池另外回收，手機本體則丟入一般垃圾。  
(C) 嘗試將手機拆解，把玻璃、金屬、塑膠部分分開投進至容器回收。  
(D) 直接丟入家中垃圾桶，當作一般垃圾處理。

請選擇正確答案：

A B  
C D

答對了!  
+50 EXP

正確做法說明：布料不屬於環保署「9大類36項」的資源回收項目，故應丟入一般垃圾。  
小技巧：題目要求依據提供的9大類36項規定，未列入的品項應視為一般垃圾。

答錯了...  
+10 XP (安慰獎)

正確答案: D

智慧型手機屬於電子廢棄物，含有有害物質與貴重金屬，必須透過專門管道回收。將其送至電子產品回收點或電信業者門市，確保妥善處理。這能避免環境污染並有效循環利用資源。

我的經驗值 (EXP) Lvl. 7

Experience points accumulation

我的經驗值 (EXP) Lvl. 7

New character unlocks

Snap a photo of the bag's contents, and the AI analyzes the materials to launch custom Q&A challenges. Answering correctly earns XP, leveling up users to unlock new characters.