Ultrasound TABOO Card Deck – Setup Guide & Source Code

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Step 1 – Install Python 3

Windows: download from python.org, check 'Add Python to PATH', click Install.
macOS: open Terminal ➜ brew install python
Linux: sudo apt install python3 python3-pip (if needed).
Verify with `python --version`.

Step 2 – Install dependencies

Open a terminal and run:

```
pip install reportlab requests
```

Both libraries are small and install in seconds.

Step 3 – Download code files

Create a folder (e.g., Documents/US_Taboo).

Save build_us_taboo_cards.py (see full listing below).

Create cards.json and paste the 35■card array (sample template provided).

Step 4 – Run the generator

In the same folder run:

```
python build_us_taboo_cards.py cards.json
```

A PDF named US_Taboo_35_cards.pdf appears in the folder.

Step 5 – Print the deck

Open the PDF in Adobe Reader / Preview.

Choose double■sided ■ Flip on *short edge*.

Print on ≥■100■lb (180■gsm) cardstock for durability.

Full Python script: build_us_taboo_cards.py

```
#!/usr/bin/env python3
"""
Build a fully■illustrated 35■card ultrasound TABOO deck.
Front: prompt + target image
Back : Taboo list + answer + probe■placement image

Usage:
  python build_us_taboo_cards.py cards.json US_Taboo_35_cards.pdf
"""

import io, json, sys, requests
from pathlib import Path
from reportlab.pdfgen import canvas
from reportlab.lib.pagesizes import letter
from reportlab.lib.units import inch
from reportlab.lib.utils import ImageReader

def fetch_image(url: str):
    """Return an ImageReader or None if download fails."""
    try:
        r = requests.get(url, timeout=10)
        r.raise_for_status()
        return ImageReader(io.BytesIO(r.content))
    except Exception as exc:
        print(f"[WARN] {url} -> {exc}")
        return None

def make_pdf(cards, outfile="US_Taboo_35_cards.pdf"):
    W, H = letter
    margin = 0.5 * inch
    img_max_w, img_max_h = W - 2 * margin, 3 * inch
    c = canvas.Canvas(outfile, pagesize=letter)

    for card in cards:
        # ------------ Front ------------
        c.setFont("Helvetica-Bold", 14)
        c.drawString(margin, H - margin, f"Card {card['num']:02d} – FRONT")
        c.setFont("Helvetica", 11)
        c.drawString(margin, H - margin - 20, "Prompt:")
        text = c.beginText(margin, H - margin - 35)
        text.setLeading(14)
        text.textLines(card['prompt'])
        c.drawText(text)

        img = fetch_image(card['target_img'])
        if img:
            iw, ih = img.getSize()
            scale = min(img_max_w/iw, img_max_h/ih)
            c.drawImage(img, (W - iw*scale)/2, H - margin - 35 - ih*scale - 10,
                        iw*scale, ih*scale)
        c.showPage()

        # ------------ Back -------------
        c.setFont("Helvetica-Bold", 14)
        c.drawString(margin, H - margin, f"Card {card['num']:02d} – BACK")
        c.setFont("Helvetica", 11)
        c.drawString(margin, H - margin - 20, "Taboo words:")
        text = c.beginText(margin, H - margin - 35)
        text.setLeading(14)
        text.textLines(card['taboo'])
        c.drawText(text)
        c.drawString(margin, H - margin - 100, f"Answer: {card['answer']}")
        img = fetch_image(card['probe_img'])
        if img:
            iw, ih = img.getSize()
            scale = min(img_max_w/iw, img_max_h/ih)
            c.drawImage(img, (W - iw*scale)/2, H - margin - 130 - ih*scale,
                        iw*scale, ih*scale)
        c.showPage()
    c.save()
    print(f"■ Saved {outfile}")

if __name__ == "__main__":
    if len(sys.argv) < 2:
        print("Usage: python build_us_taboo_cards.py cards.json [output.pdf]")
        sys.exit(1)
```

```
cards_path = Path(sys.argv[1])
out_pdf = sys.argv[2] if len(sys.argv) > 2 else "US_Taboo_35_cards.pdf"
cards = json.loads(cards_path.read_text())
make_pdf(cards, out_pdf)
```

Sample cards.json template (add 35 objects)

```
[
  {
    "num": 1,
    "prompt": "Trauma patient: show the window that reveals free fluid between liver and right kidney.",
    "target_img": "https://www.acep.org/globalassets/new-pdfs/education/ultrasound/fast/fast_ruq_positive.jpg",
    "taboo": "FAST • Morison’s • RUQ • Liver • Kidney",
    "answer": "RUQ FAST view of Morison’s pouch.",
    "probe_img": "https://www.acep.org/globalassets/new-pdfs/education/ultrasound/fast/fast_ruq_probe.jpg"
  }
  // ←–– duplicate & edit objects for cards 2■35
]
```