Hacking the Shoals Shack NFC Card Reader & Sending Customers Fake Coupons

This project will make use of the following credit card reader as the attack vector:

A white plastic container on a black surface

Description automatically generated

I will leverage an ESP32 device to retrieve phone numbers of customers stored using their credit cards NFC reader.

1. This paper details how NFC technology works
2. This paper details how a Man-In-the-Middle attack can be performed on one.
3. This guide details how to program and connect the ESP32 module an NFC chip reader (and sample code).

Things to purchase:

1. [This link](https://www.amazon.com/dp/B0B764963C?th=1&linkCode=sl1&tag=zlufy-breadboard-20&linkId=7361cce4ef6bc815d5d97ca0c88704ba&language=en_US&ref_=as_li_ss_tl) contains the ESP32 device I need
2. [This link](https://www.amazon.com/HiLetgo-RFID-Kit-Arduino-Raspberry/dp/B01CSTW0IA/ref=asc_df_B01CSTW0IA?mcid=896d590d183434548498ee0eaa5bc8a9&tag=hyprod-20&linkCode=df0&hvadid=693615855514&hvpos=&hvnetw=g&hvrand=10906508790657664175&hvpone=&hvptwo=&hvqmt=&hvdev=c&hvdvcmdl=&hvlocint=&hvlocphy=9195265&hvtargid=pla-1950968056071&psc=1) contains the NFC chip I need
3. I would also like this [enclosure box](https://www.amazon.com/Zulkit-Dustproof-Waterproof-Universal-Electrical/dp/B0CNXL2V9Y/ref=sr_1_10?crid=2KBWM7CX906GW&dib=eyJ2IjoiMSJ9.FI6CP6UhjK0kFvxR4jNil-SsqWWL8kT7K05OVx5S4_e7tkRWq-7HDOBPtRsTYdf4qzmAzmuDPmjs4O9rV5eME-sMuDvHhXntuFgkwkPQ7SOKyD552uNvAteBU7RAGKmVBGA6LG8kaLhR7gIxYxOhcoBRi2WabOZwI0OL1dNDnKQ36d4R7XSFl5XRhum39PhuNC34KCLWPTZktY7-6G87ojnBDCOQWtrDNOUXpSBxWalkCwT2iKl6GuS1G2kErUf2T8LwerhKSmLoDRXPHXva4E_ImJa40_vvBNKi_KS3XGTUvS7WrpR0Xi0kciU2-oRqLg7ppCne2_XpZkUjr2N7UlVRmYwFJwu-m4yzrOx5zAFI6OT0G957A0itu25B_BKNXMpR5GhqLfPHoPjNxt2JPnwFNY2L_Ovh_33AmccxofiF2M0tl0TaqLokKHwf44XA.Rd3tJRX9AC__aFmGi1wK64bLZ18a3BQP36vN02doC_g&dib_tag=se&keywords=esp32%2Bbox&qid=1736396972&sprefix=esp32%2Bbox%2Caps%2C154&sr=8-10&th=1) to house the NFC and ESP32
4. I also need some [jumper wires](https://www.amazon.com/DIYables-Multicolored-Prototyping-Electronic-Raspberry/dp/B0BDFML3XD?ref_=ast_sto_dp&th=1) (or I can share with someone)

Total = ~$40