



# Venmo Ticket Dispenser

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[andrewhlu.com/venmo-ticket-dispenser](https://andrewhlu.com/venmo-ticket-dispenser)

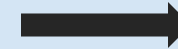
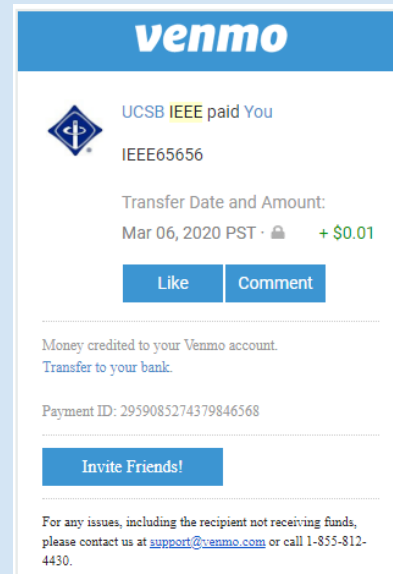
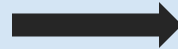
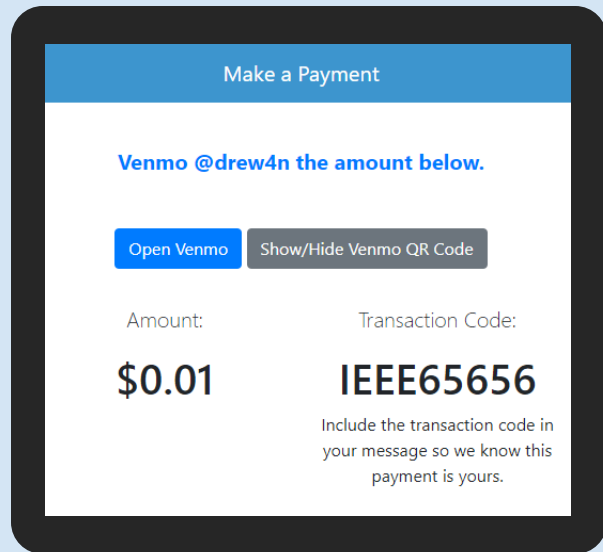
# Why?

- Every year, cultural student organizations such as TASA and HKSA host a night market at Storke Tower.
- These events sell food using tickets as currency. You have to buy those tickets before you can participate in the night market.
- The line to purchase said tickets can take up to 30 minutes, regardless of the method you use to purchase the tickets.
- No one likes waiting in line. Especially when it's for food.
- *Absolutely no one.*
- So let's attempt to fix it by automating purchases!

# How?

Since many students use Venmo to make purchases, we can set up a kiosk to automatically collect transactions and dispense tickets.

This will be done using an Android app that automatically scrapes the owner's email account for Venmo emails and dispenses tickets for the user.



# APIs / Permissions to be Used

## Software APIs

- Gmail API (to scrape Venmo purchase emails)
  - Venmo does not have a public API

## Hardware APIs / Application Permissions

- Internet (to access Gmail API)
- Bluetooth (to connect to a custom-made ticket dispenser)
- NFC (to allow admin access to a kiosk by scanning a badge)
- Proximity Sensor or Camera (to detect when a user is at the kiosk)



# The Final Product

## MVP (worst case)

- App allows users to start a transaction
- Users send a Venmo payment with the code provided
- App will look for transactions and dispense the correct number of tickets
- Admins can tap a valid NFC card to the device reader to access admin settings

## Nice-to-have Features (best case)

- When a user walks up to the kiosk, the app will automatically start a session (generate a code)
- Admins can manually dispense tickets (e.g. cash purchases)
- Customizable visual / screen saver for idle time
- Real-time statistics
- Support for credit cards (using Square API)