**Adam’s Section**

**Describe your project.**

our idea is to create a specialty Point of Sale (POS) system that could be sold and marketed to any food truck owner.

**What problem or need does it solve?**

The software will track sales, inventory, *(EXPAND THIS)* & it would offer the potential to cut labor by at least one person per truck.  This would be the main advantage our POS would have over existing restaurant POS.

**What perceived tangible or intangible benefit can you foresee once this project is implemented?**

We could initially sell it as a software and hardware packaged combo, like all modern restaurant POS. This is called a SaaS or software as a service. We would sell the package for almost no profit, but then charge a monthly fee based on sales. Something like 0.5% of total sales, or maybe 2% of sales though the smart features.

Most food trucks staff 2-4 people, so the software would potentially cut labor anywhere from 25-50%.

We could then invest a portion of the proceeds from the sale of the package into starting our own food truck business. If we became the users of the POS would would envision adding more ideas and features to the POS system.

Increased operational efficiency

More customer engagement

Lower labor costs

Real-time inventory analytics

**Jason’s Section**

** What technologies do you plan to use to complete this project?**

We would do most of the programming though html, php, sql, Python & Tkinter.

We would offer a splash proof touch screen with one of the packages, with better/larger screens on the premium packages.

We want to attempt to run the entire software package on a S – B - C.

SBC stands for Single Board Computer.

SBC are complete computers built on a single circuit board with a microprocessor, memory, and i/o points.

We will attempt to use a Raspberry Pi, which is a little larger than a CC, and about as thick as 8-10 credit cards stacked on top of each other.

(NEXT SLIDE)

This is a RPi

The newest version of a RPi is a Rpi5, which none of us own, but we do have a pi4, and will be attempting to use it.

Pi5 is the newest, and most powerful Pi, there is also a Pi3

The RPi foundation has sold over 23million RPi 3 units. Last I saw it was the most produced SBC ever created.

with 68million to Raspberry Pi units sold.

At worst we would be looking for a more powerful SBC, but im pretty confident that we will be able to stick with the Pi

Here is a little breakdown of the I/O on a Pi.

Top Right is an Ethernet Port,

Below that are 4 USB ports

These Pi4 have dual HDMI micro ports.

There is a USB -C for powering the unit.

On the left there is an Micro SD card slot, which is what the software runs on

You can also buy “hats” for the Pi, which have lots of other features, including hooking it up to an SSD, which allegedly improves performance dramatically.

We will be running Raspbian OS, which is a version of Linux.

None of us have RaspberryPi 5’s, but we do have a spare Pi4.  At worst we would be looking for a more powerful SBC.

A smaller device like this should be able to be powered by the food truck's battery/alternator.

We may add touch screen displays. (I would say “may” so when we DO, it looks better)

(NEXT SLIDE)

** Provide a vision of the finished application.**

**A Food Truck Specific POS**

That enables food truck businesses to speed up the process of order taking and drive efficient operations.

QR codes linking to the ordering page

**Customers place their order** with or without guidance

This will cut down on the wait time for any lines that form at the truck window

**They can order ahead** though the web with estimated pickup times.

Transaction is recorded

Inventory counts will be tracked and updated as the orders are completed, allowing for employees to monitor their needs.

**Order is sent to order tracking display**

This is a display inside the truck so the employees can begin preparation in a timely fashion.

(NEXT SLIDE)

**This obviously Tracks the Sales** for the owner

**The online ordering facilitates** a larger digital footprint than any other food truck.

**And we want to solicit feedback** from the customers, including voting on upcoming specials

**The food truck business** will setup the POS running on the trucks power supply,

**These are not common features** with a food truck.

**Cole’s Section**

** How and who will you gather requirement.**

We can interview food truck operators and restaurant operators about the features they use the most, and would request.

We could also survey food truck customers for their input. The customer is always right (most of the time).

** What risks do you see in pursuing this project?**

Restaurant POS systems are constantly evolving and adding new features. We could spend years working on this without catching up to some of their modern features.

Reliance upon prefabricated hardware

Maintaining software would require the business to send back the hardware for software updates and bug fixes

Initial cost of hardware falls upon us. Buying in bulk always make sense, but investing too much in the startup could leave us with excess hardware that will soon slower than the newest offering.

**Additional Considerations:**

Building a solid prototype and being able to test it is a large part of this project. We would need to figure out correct displays for connecting to the Raspberry Pi.

Understanding what current systems food trucks use will greatly help our design.

Software will need to be applicable to all types of food trucks.