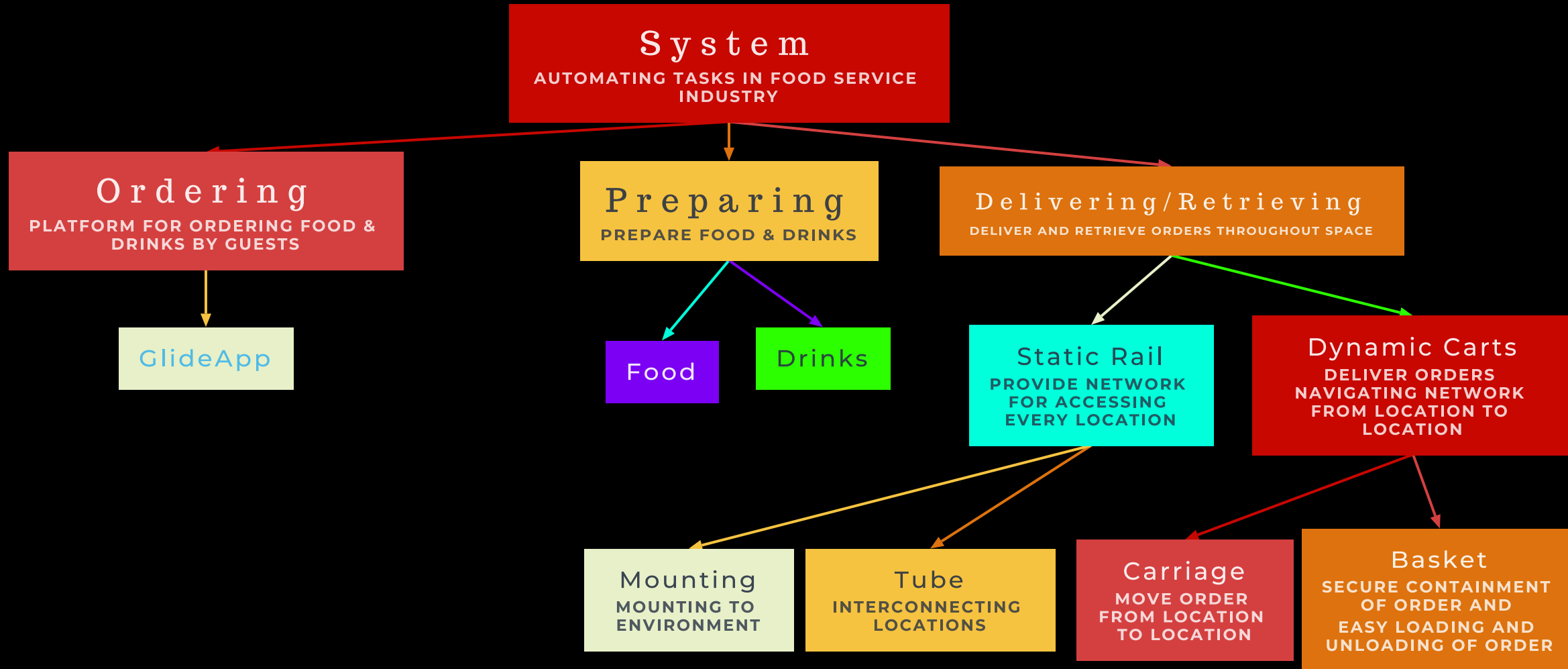




Blue Sakura

Automation And Beauty
So of course a Japanese theme

Hierarchy



- input Perceiving Reality
- output Executing Actions

What makes great hardware

- **Simplicity**

- Company decides where choices lie within the projects. for example modes or different motors whatever

- **Easy Accessories**

- good collaboration
- universal communication

- **Reliability**

Low maintenance

Long Lasting, Low friction/noise

Exchangeable like fairphone

- **Efficiency**

- Energy Regeneration Momentum/Gravity
- Gravity compensation

- **flexibility**

- Payload
- Acceleration
- Velocity
- Accuracy/Repeatability
- Collaboration

- **Safe**

- Clean Surfaces/low pinch points

- **Spatial awareness**

- 3D enviroment, sonar



- Processing

What makes great software

1 HUMANS

- User Interface
- Tesla, Automata
- Making complex things easy
- Teachability of arm
- [Tutorials Glide/TA](#)

2 SYSTEMS

- Collaboration with other systems
- Compatability
- Updates
- [Vention.io](#)
- [Prusa](#)
- [Farmbot](#)
- [Teenage Engineering](#)
- [Arrival](#)
- [Canoo](#)

3 Spatial awareness

Safety Algorithm



What makes great tco

True total cost can include not only costs but incremental savings or revenue flows created by the capital investment. The change in cash flows versus the “business as usual” option is what mitigates total cost of ownership (TCO). Those monies must be valued using Net Present Value calculations to consider the values over time.



Acquisition/Physical Hardware Cost

Include the cost of equipment or property before taxes, but after commissions, discounts, purchasing incentives, and closing costs. Sometimes this will include one-time peripheral equipment or upgrades necessary to installation or utilization of the asset.



Personnel Costs

Personnel overhead may include administrative staffing, support personnel to the equipment, facility housing the equipment and operators. This may include ongoing training and troubleshooting labor for maintenance purposes.



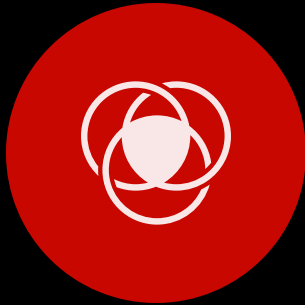
Operating costs

include subscriptions or services needed to put the item into business use. This includes utility costs, direct operator labor, and initial training costs.



What makes great product/service/system

Solves a problem easy, good and cheap



Good combination

Software, Hardware, And TCO



Compatibility

Hardware And Software



Magic

Something Breathtaking



Design Comparison

Delivering/Retrieving Network Infrastructure

Deliver and retrieve orders throughout space

Type	Vacuum Tubes	Semi Conductor	Rail
Active/Passive Network	Active	Active	Passive
Internal/External Load	Internal	External	External
Efficiency	Low	Medium	High
Traffic Troughput	Low	High	High
Maintenance	High	?	Low
Flexibility	Low	Medium	High

External cargo

causes the size of load to be determent by the minimum permeable space it crosses during locomotion

Internal cargo

causes the size of the load to be determent by the tube diameter, automatically protected load

Active Network

High infrastructure costs, Shitty scalability, network maintenance, Low adaptability

Passive Network

Reduces points of failure, no network maintenance, Flexible placement

Efficiency

Regenerating energy trough momentum and gravity, with a regenerative drive system

Traffic Troughput

Intercrossing Pathways, acceleration, velocity, Intelligence, size, network locations, network geometry

Flexibility

intelligence, network placement, cooperation, load size and weight



Manufacturing

Customer wants
Deliver and retrieve
orders throughout
space

For orders, food, drinks, parts

Automatic bill of
materials is created
and outsourced to
locals Automatically

how network is distributed, which/how
carts

Describe traffic

Quantity, size, type, speed, g forces,
locations, timescale

Parts are
made/installed by
local companies

Metal Machines, Social workplaces,
students



Design Requirements

Static Rail

Provide network for accessing every location



Tube

- Precut
- Free Form Bending
- Joining
- Elagance
- Network Sections,
- Thomas Train Parting
- bigger radius = more speed



Mounting

- Rivets



Design Requirements

Dynamic Carts (Rocketeers)

Deliver orders navigating network from location to location

Expedit

MOVE ORDER FROM LOCATION TO LOCATION

● Move down the Rail

- Hub Motor
- Good Control
- Accu 288Wh 40kmh for 100km regenerative
- sequacious
- VESC
- 10S 21700 Pack 185WH Max ~50km/h for 30km
- With attachable side batteries expanding 45mm outwards total increases to 740Wh total, 1kg extra. on a skateboard with 200mm wheels it can carry 90kg 40km/h for 40km. However because of less friction and air resistance. I guess somewhat around 75Km

● Able to switch Rails

- Permanent magnets, Shitty thiing with magents is, that as load increasing traction decreases, just the opposite of what's needed. Maybe electromagnet for inforcing more force temporarily.
- Parallel turning wheels for dogwalk effect spiraling on tube but stop at minimum degrees need to turn for minium magnet attraction deflection caused by dynamic distance to tube

Carg

SECURE CONTAINMENT OF ORDER AND EASY LOADING AND UNLOADING OF ORDER

● Easy Loading an Unloading

- Order number on basket screen
- Multiple carriages in train for carrying larger load

● Secure Containment of order

- Sealed Space
- Automatic opening and closing

● Don't interfere with Expedit

- Concentric pivot point for basket
- Compliant bearing

Design Requirements

Dynamic Carts (Rocketeers)

Deliver orders navigating network from location to location

Parallel Mecanum

Only side ways a 1/2 speed reduction that's maybe an advantage? High Flexibility. Dual Driving Motors

Colinear Mecanum

Concept, constant 1/2 Speed Reduction, Constant rolling of rollers, high flexibility. Dual Driving Motors. cause the high flexibility maybe turn to couple and decouple battery

Straight

Can be controlled by morphing aero wings creating asymmetrical air pressure turning, low but maybe enough flexibility. optional single motor and servo

Parallel turning

Using difference of speed between motors for steering. By mounting the motors on either side when the first is slower it turns to the right, and when the last is slower it turns to the left steel plate flexures, Dual Driving Motors

m a n u f a c t u r i n g

compliance



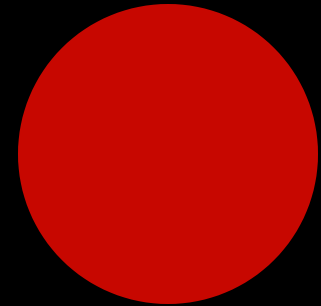
Compliant sheet metal

Suplacon

Tailorsteel



Bending Teenage
Engineering



simplicity

Using Puzzle pieces for as much as possible,
Using existing moving freedoms for
activating actions and functions, like
nozzle lifter on ultimaker

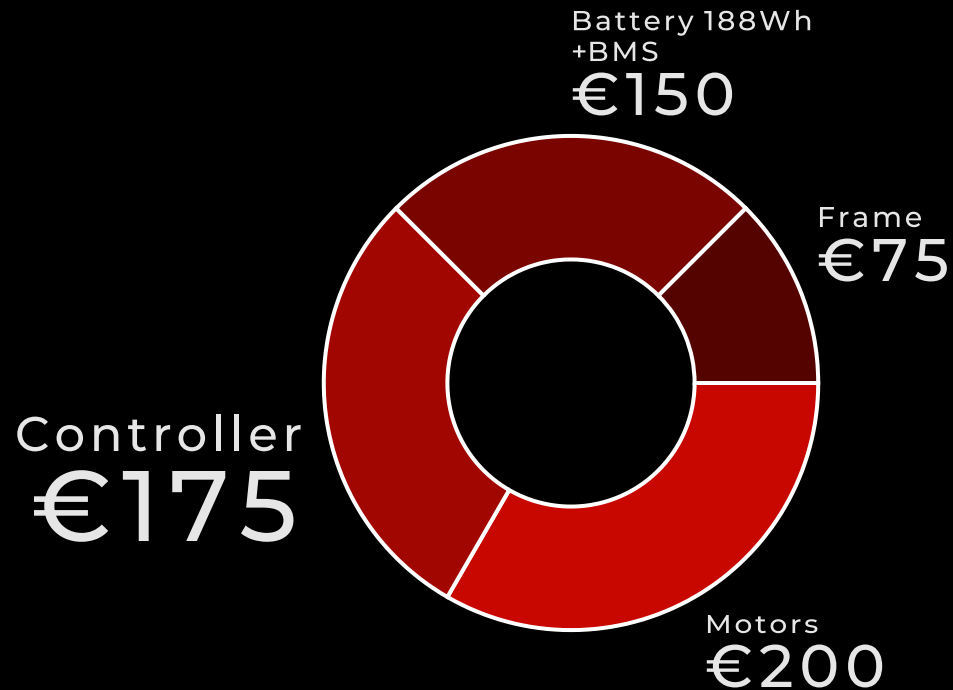


money

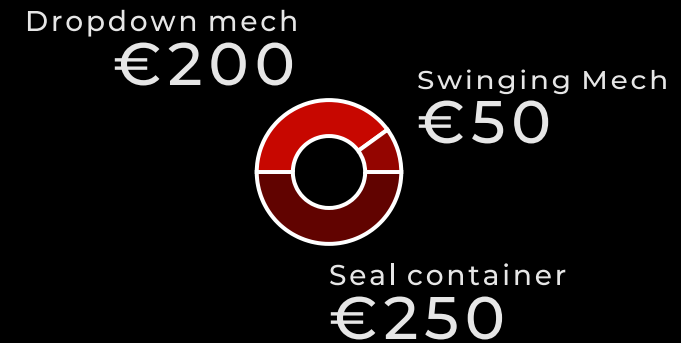
170 euro four 20 parts, like 4 20 parts as a joke
so like 5000euros for 3 rocketeers and 110 meters rail

550wh more for 400eur more

Expedit 600



Carg 500



Network



Control

Focbox Tenka

- Testing

1. Custom app on phone connected with Tenka
2. Particle Uart/can
3. Pi Usb

- Computing



Wonder

Experience



Lights

- take advantage of Faraday's law through LED's on powered track. Sticker with coil and led?
- [NeoPixel Neon](#) status/speed/battery/can make look lights are static on dynamic cart relative to environment
- Screen and animations



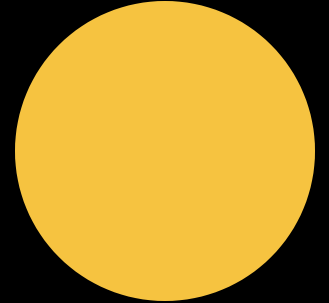
Design

- [Illustrations](#)



Movement

- Synchronous Dance



Everyone can customize

for example: food safety, beauty, elegance, style of company. higher vs lower payload, speed agility vs power and lifetime





Glide app

- Filtering

Allergies, Preferences, Vegan, Ingredients

- Custom Dishes

Configure custom dish, maybe favorited

