



RFID JOURNAL LIVE!

SEPTEMBER 26 - 28, 2021
PHOENIX CONVENTION CENTER | PHOENIX, AZ

Leveraging RFID to Improve Customer Experience

The DART Group

Justin Patton

Director, Auburn University RFID Lab

Video #1

Auburn Journal Live VR Lab Video

PLM Model Overview

Process

- Process flows detail decisions customers make while in store.
- Understanding the current state helps DART recognize areas for optimization and innovation

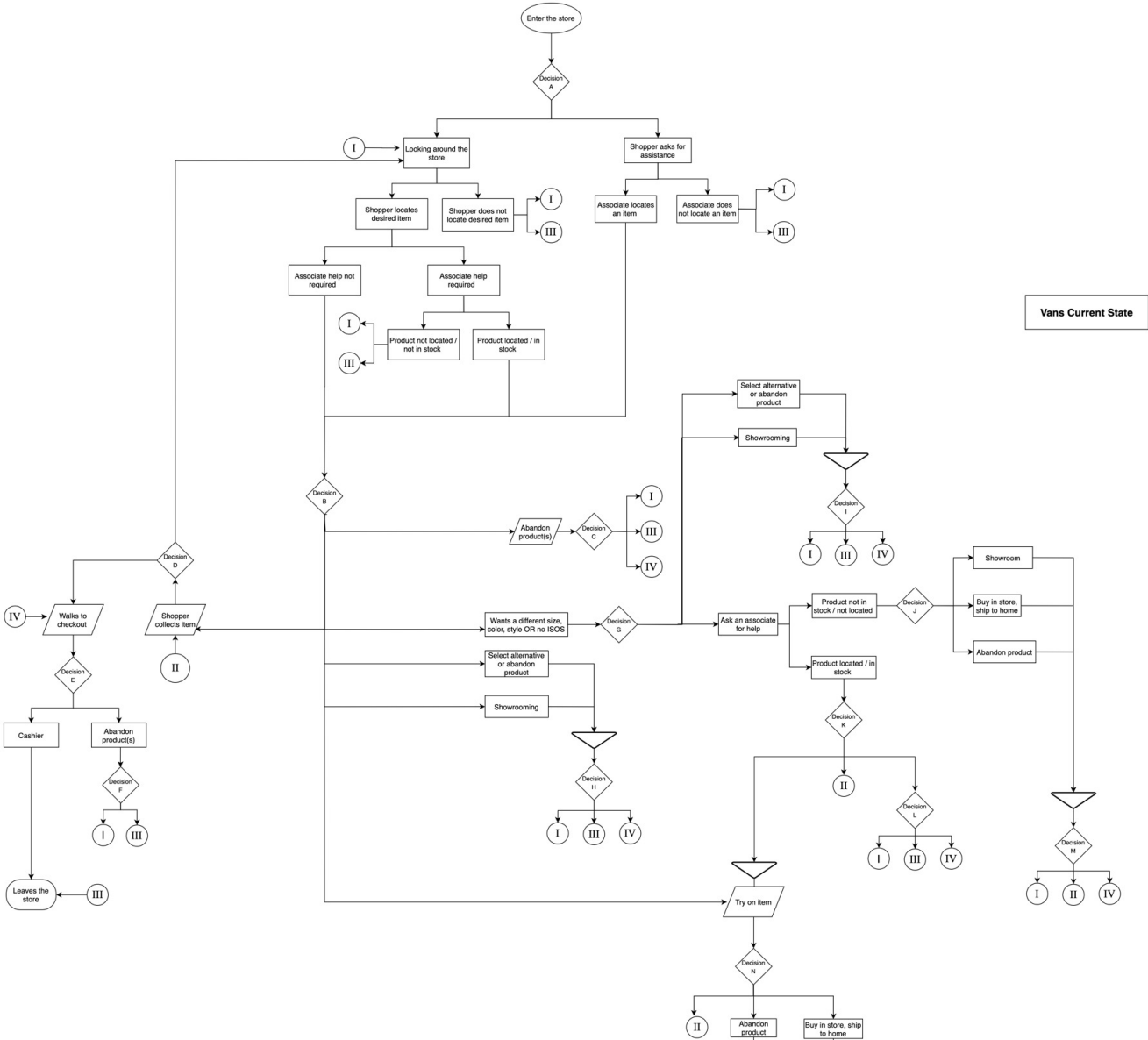
Layout

- Layouts are an estimate of each brick-and-mortar store.
- Point to the physical location of decisions customers are making in the process flows.
- Aid in understanding customer movement during their shopping experience

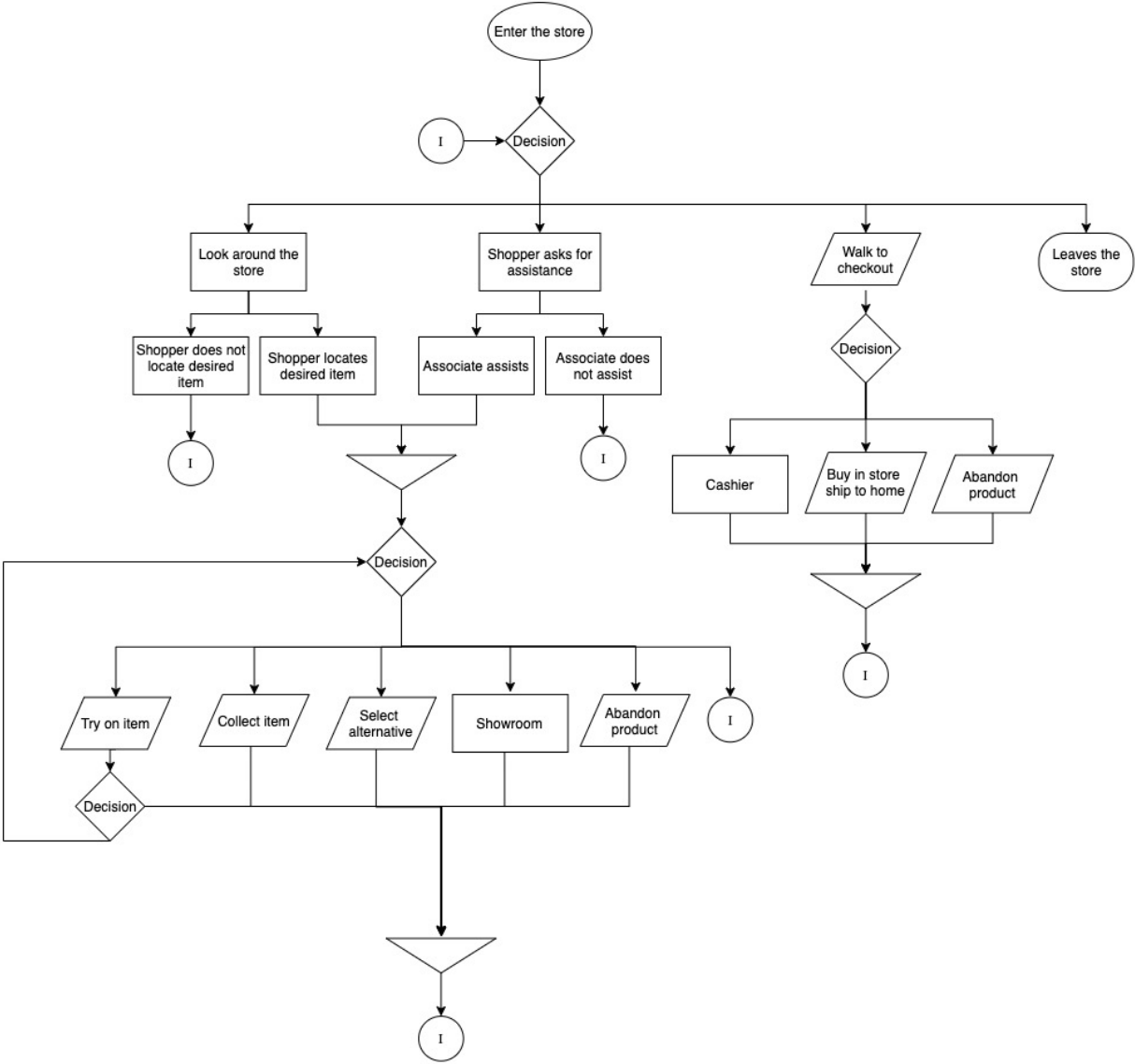
Metrics

- In partnership with retail management, DART determines metrics for improvement.
- DART analyses how proposed technologies and/or process changes impact decisions that shoppers make while in store and overall customer experience

PROCESS FLOW UPDATE



PROCESS FLOW UPDATE

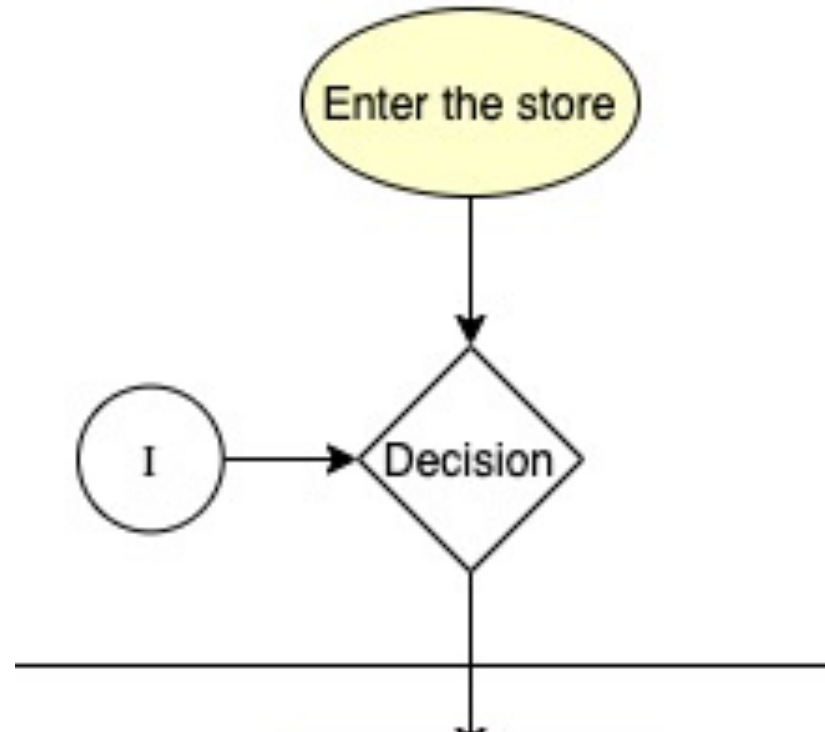


Sample Process Flow Trial

In this trial we will be shopping for a men's shirt.

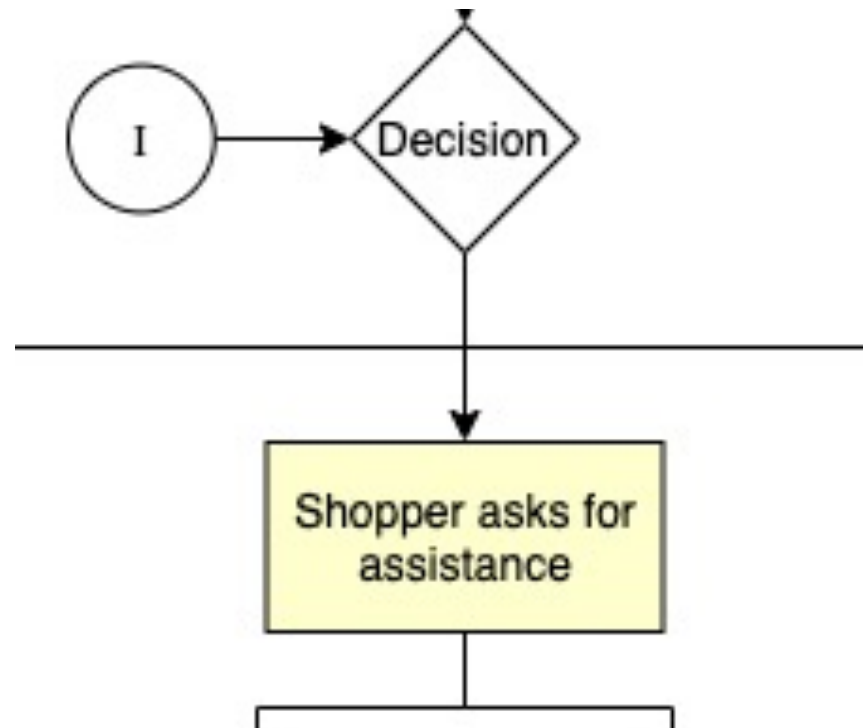
Step 1: Enter the store

Probability: 1



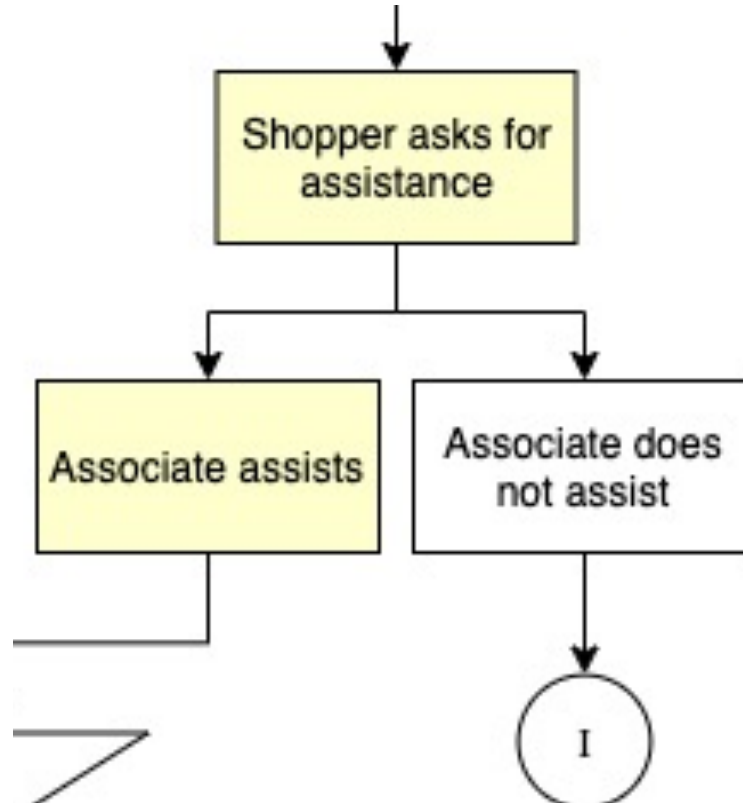
Step 2: Shopper Does Not Locate Desired Item

Probability: 1/2



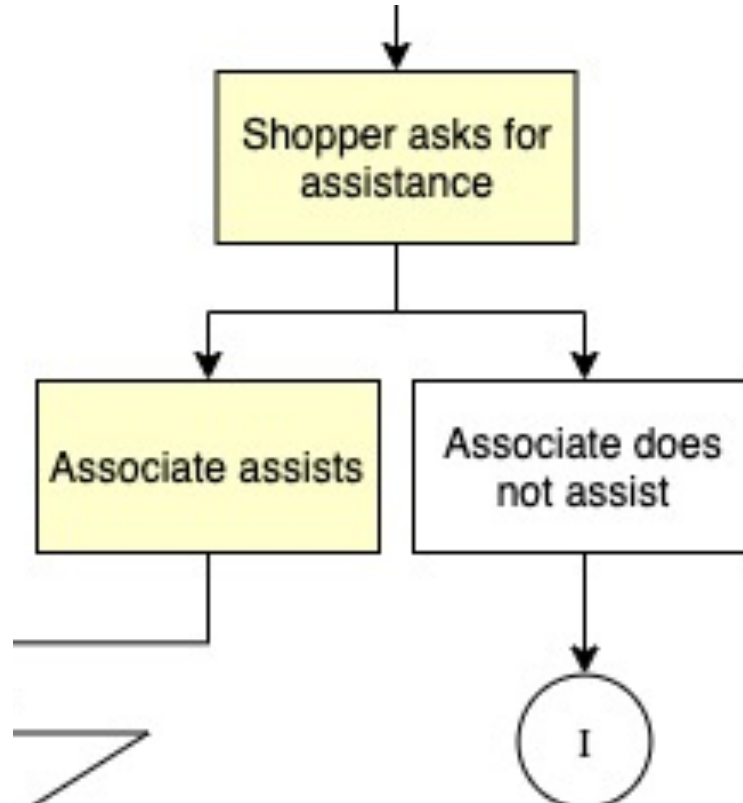
Step 3: Shopper Asks for Assistance

Probability: 1/3



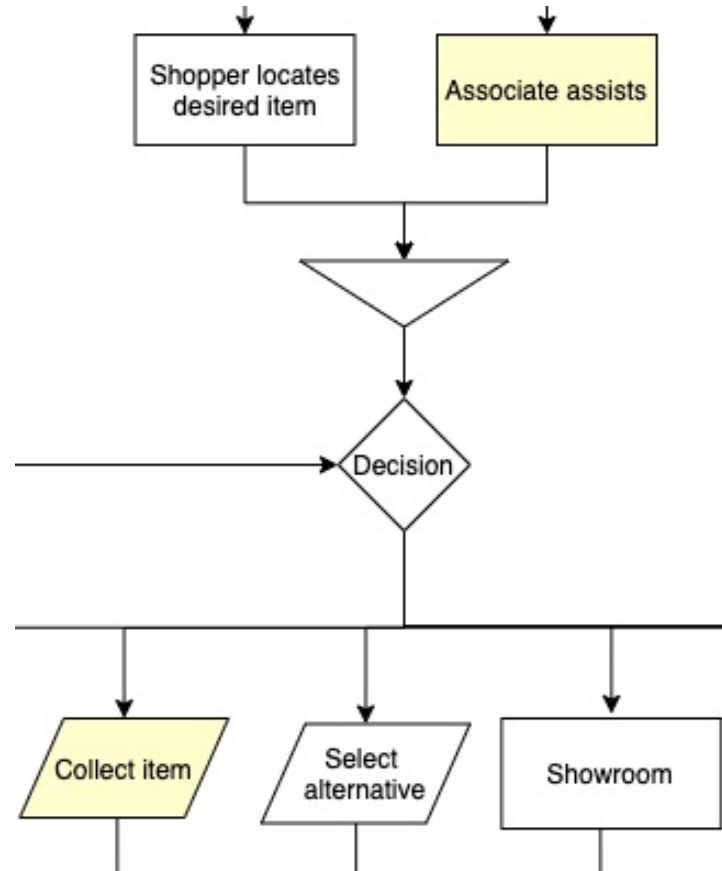
Step 4: Associate Assists

Probability: 1/2



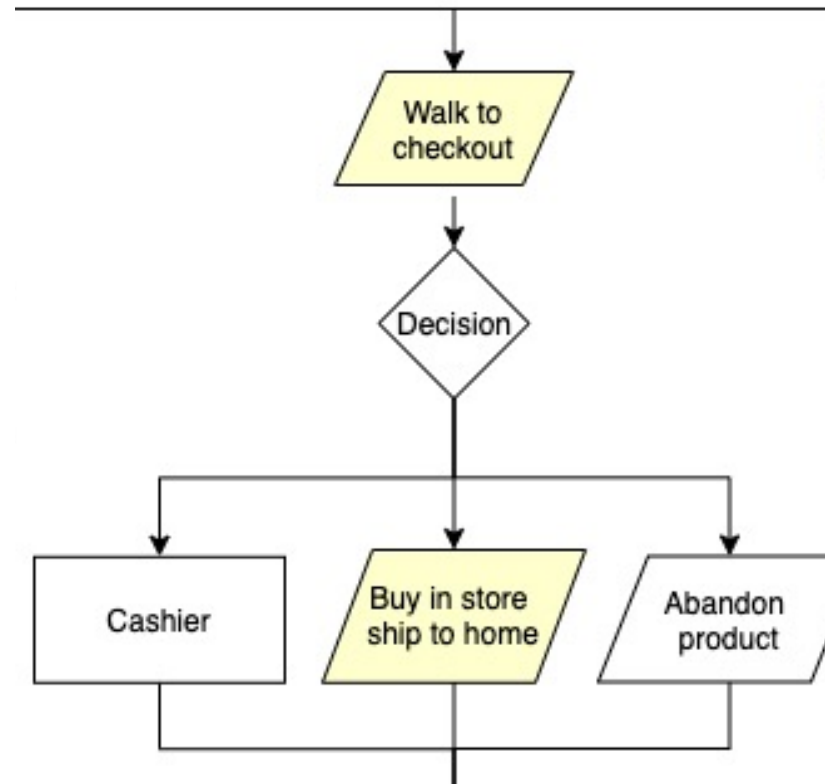
Step 5: Collect item

Probability: 1/6



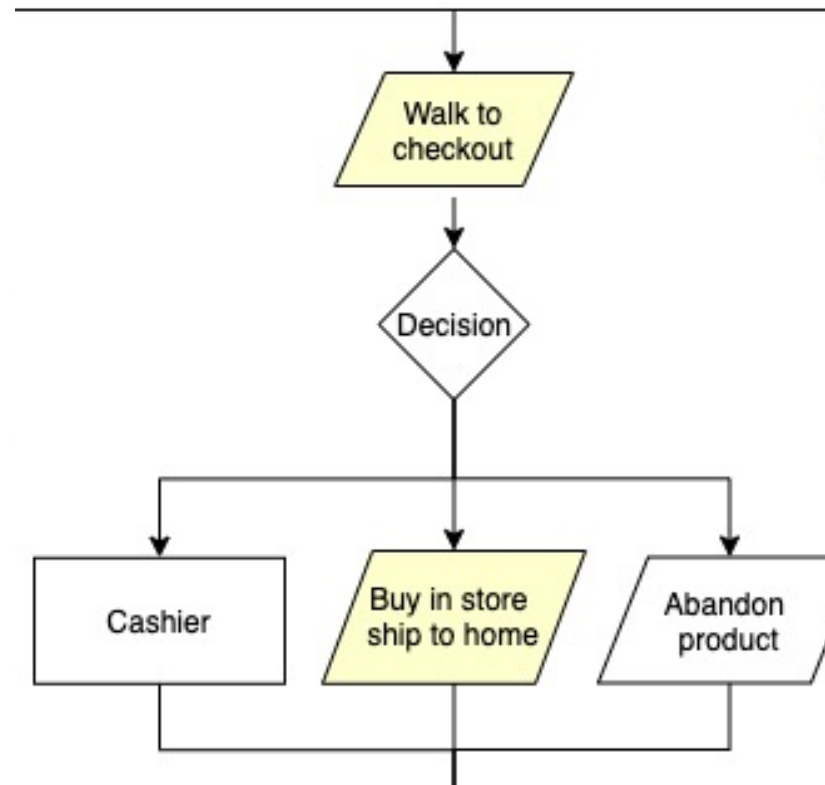
Step 6: Walk to Checkout

Probability: 1/4



Step 7: Buy In-Store, Ship to Home

Probability: 1/3

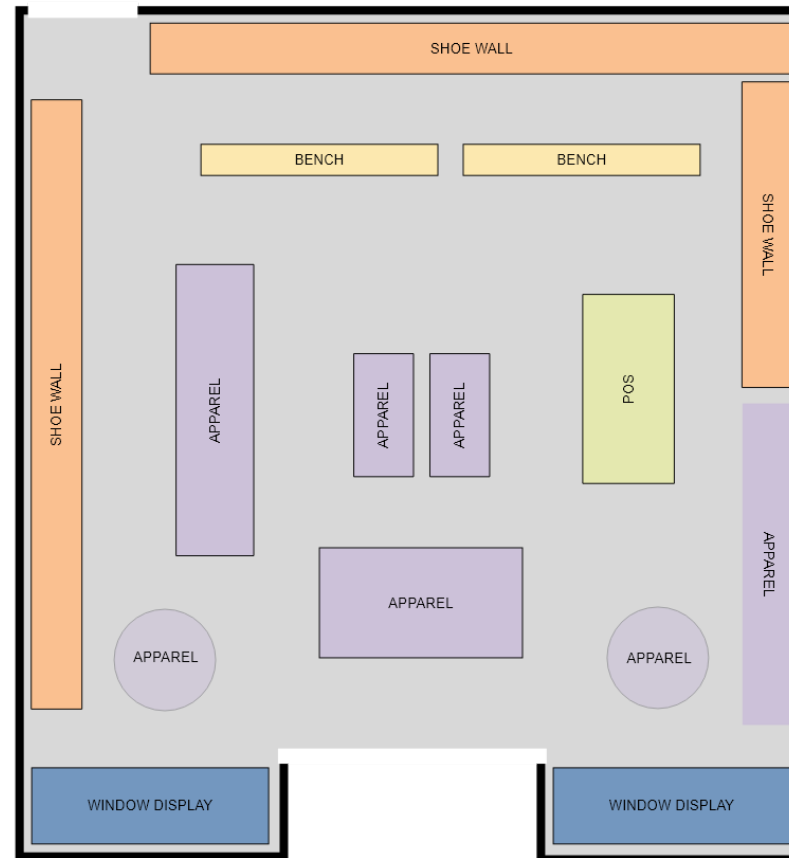


Step 8: Leave the store

Probability: 1/4



LAYOUT UPDATE



LAYOUT UPDATE



Video #2

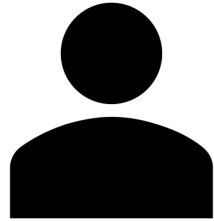
Auburn Journal Live DART Video



“GAMIFY” THE PLM MODEL

- Seek to "gamify" our store layouts using Unity 3D
- Aid in visualizing the connection between layouts and customer decisions detailed in process flows
- Map the customer journey
- Use the simulation to more accurately weight process flow decisions

METRICS

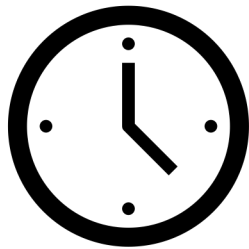
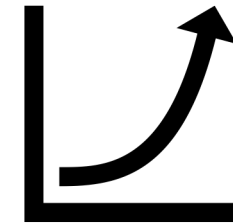


CUSTOMER INDEPENDENCE

$\Delta C = +1$ (-ask for assistance)

EFFICIENCY

$\Delta E = 0$ (- ask for assistance, + request via kiosk)



TIME IN STORE

$\Delta T = -3$ (4 minutes manual, 1 minutes AS/RS)

MODEL EVOLUTION

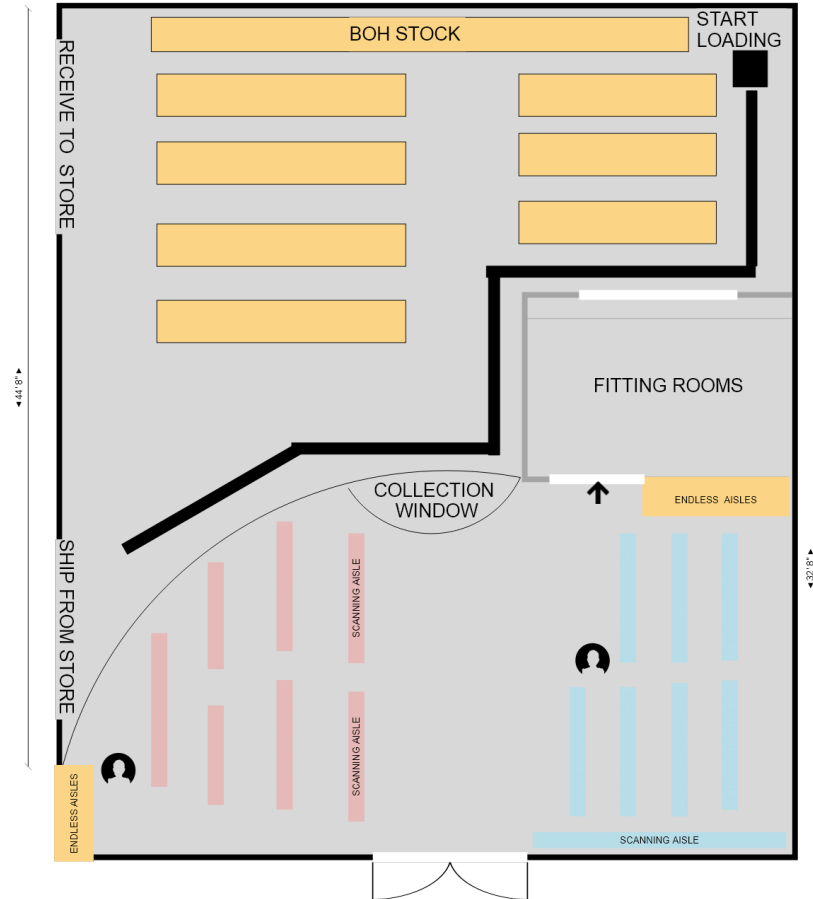
- Guided "take-home" experience
- We will load the simulation into a VR headset and send it to you for an immersive experience

Benefits of VR:

- Track head movement
- Track hand movement
- Understand customer reaction to visual merchandising
- More thoroughly understand customer behavior in-store



Low Contact Model



Function

- Increased BOH
- Optimized for SFS and BOPIS
- Innovative in-store experience

Benefits of Model

- Exponential technological advancement
- Simplified merchandising
- Greater operational efficiency
- Greater inventory accuracy
- Theft prevention

WHAT IS NEXT?

We will be releasing an experimental product.

We would like your partnership!

Sign up for waiting list by emailing Lauren Dunn
(led0030@auburn.edu)

You will aid in product development and give feedback on
experience before it is release to the public

THANK YOU

RFID
JOURNAL
LIVE!