

# FLIGHT: H&H-6Σ

## PASSENGERS:

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**STATUS:**  
ON TIME

# Bin There, Done That



Thank you to Harper Engineering, Ryan Funk, and Keegan Lubianski for sponsoring our project!

Harper Engineering is an aerospace manufacturer specializing in aircraft interior components such as seat track fittings and overhead bin latches.



## GENERALIZED QUESTION

How can Harper & the Huskies design a standardized workbench to improve the workflow through the General Assembly area?

## PROBLEMS IDENTIFIED!

### Waste of Motion

**Avg. of 8 Trips** per order to retrieve tools & test aids

### Missing Inventory Parts

**44%** of observed orders affected

### Tribal Knowledge

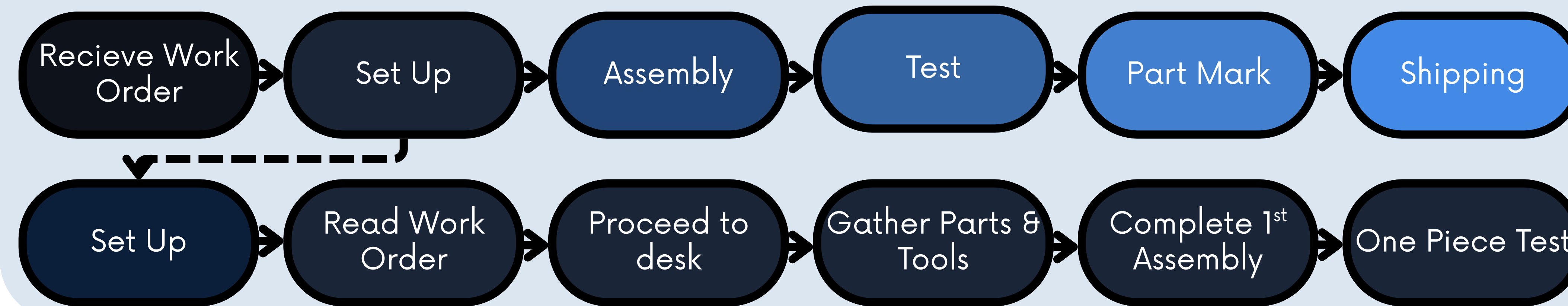
Processes rely on experience

## OBJECTIVES

**REDUCE:** Set-Up time

**IMPROVE:** Ratio of Value Added Time

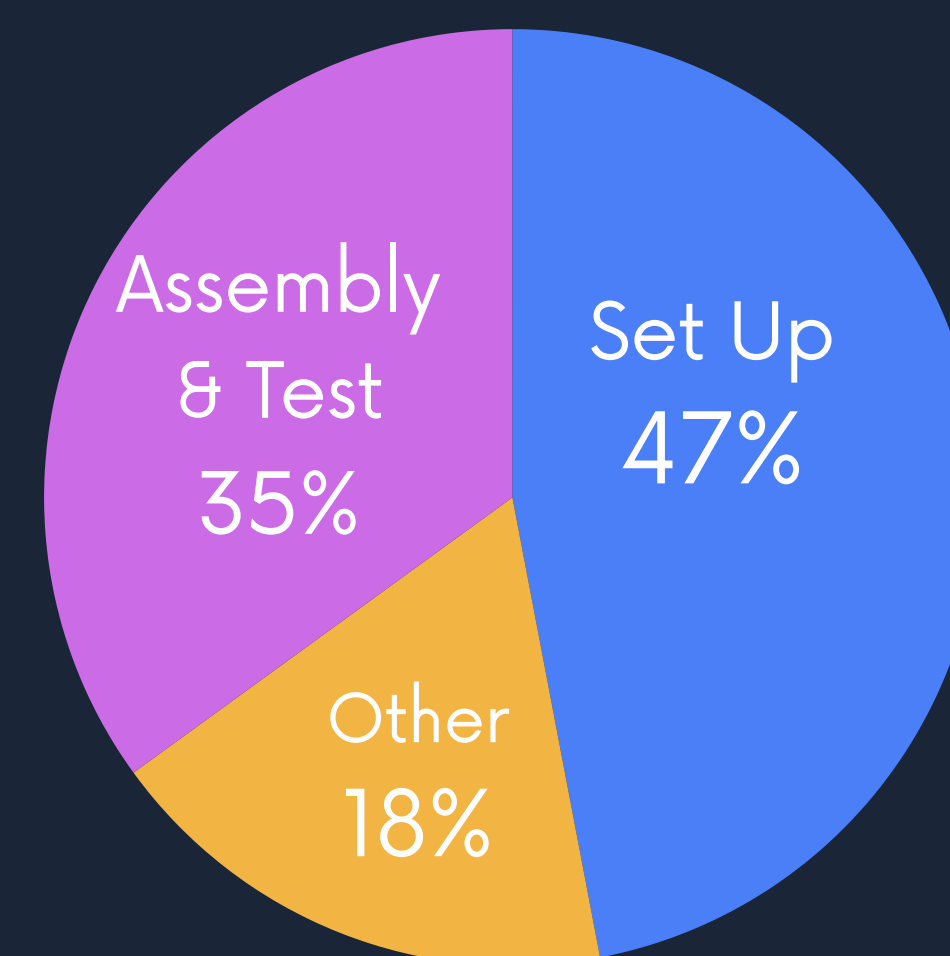
## PROCESS FLOW CHART OF HARPER MANUFACTURING



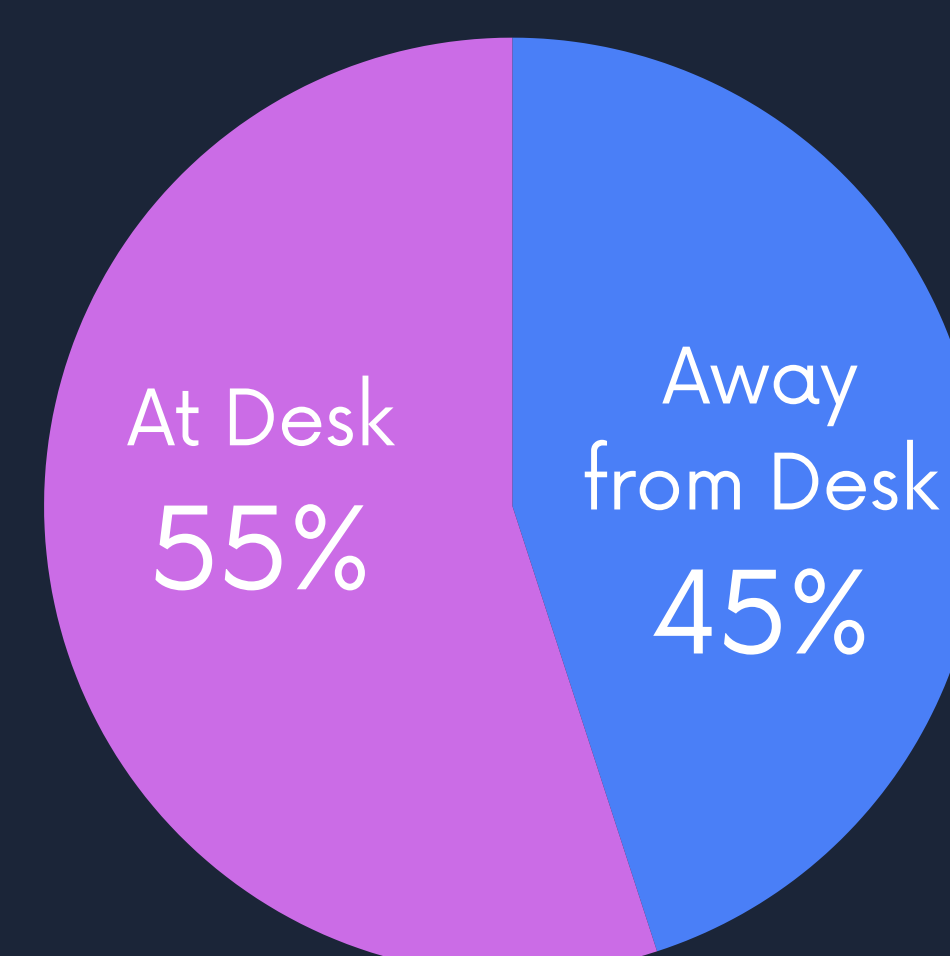
## UPDATES TO PROCESS FLOW

### Reasoning

Setup time accounts for ~47% of the total work order completion time



45% of Setup time is spent away from the workbench searching for materials, tools, and inventory parts



### Implementation

#### WORKSTATION

Moving away from centralized location towards individualized desk organization

- Assigned job bins and fasteners to workstations based on fixed equipment location
- Staged hand tools at workstation instead of one toolbox

#### RELOCATION

Consolidate necessary materials to the manufacturing floor

- Move iPads to Gen. Assembly

#### DOCUMENTATION

To reduce the number of missing parts & lost tools

- Parts list for inventory
- Tool list for manufacturing

## BENEFITS

### Motion Waste Reduction

8

# Departures From Workstation Per Job

3.5

### Cost Savings

\$56,044 / year

### Payback Period

4 days

38.8% ↓

Set Up Time

16.26 Minutes

BEFORE

9.95 Minutes

AFTER