



C919 Kit Carts

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Introduction

This project has been over the span of several months. I worked alongside David Cate, Manufacturing Engineer for the C919 program. The goal of the project was to create a kitting process and kits for the C919 Program to prepare it for the expected increase in production in the following years.

Activities:

I was given several tasks throughout the duration of the project. This included grouping parts for different kits under the C919 program, creating a Statement of Work for contractors to use the groupings and CATIA files to make the kit carts, creating prototypes of the kits, and assisting in the layout changes to the C919 stockroom to improve kitting flow.



Figure 1

Color coded groupings of parts in order of build sequence and ease of access. Software used to design kit cart assemblies is CATIA V5.

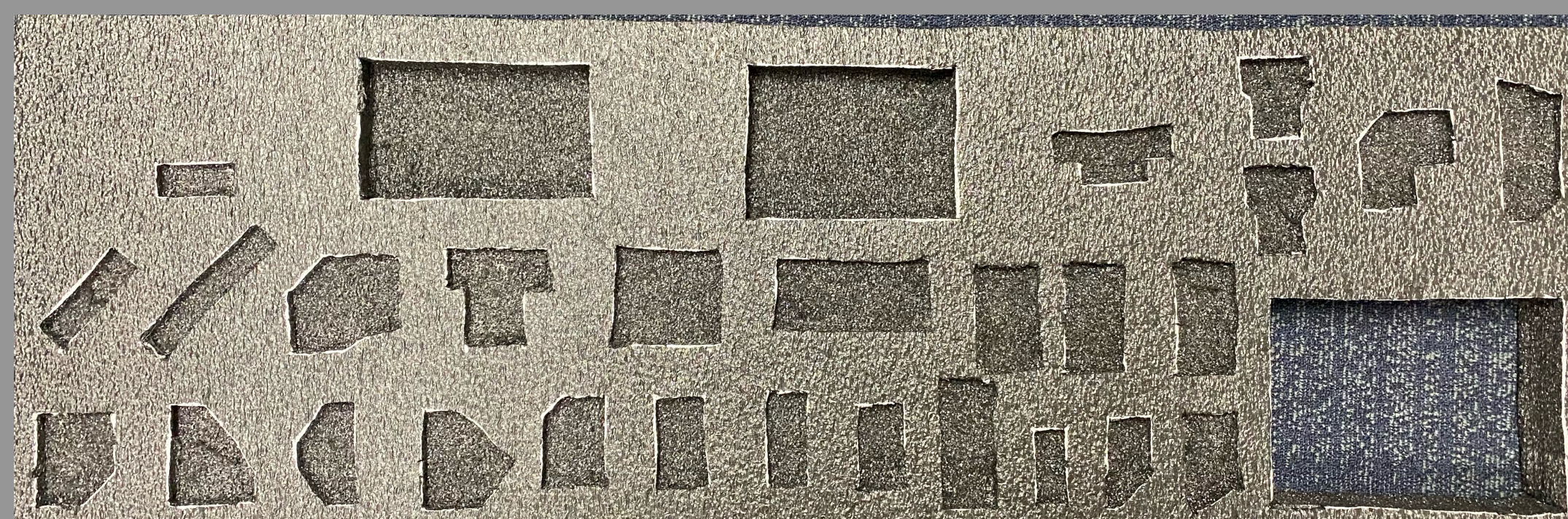


Figure 2

An example of a prototype kit that had slots for designated parts. The spacing allows for their to be labels placed to identify parts by their number.

Issues Confronting Site:

As the C919 program and others increase production, processes such as product flow, lean manufacturing, and kitting processes need to accommodate for it. The C919 program is one of the few programs lacking kit carts. This kit carts are meant for ease of use, safe transportation of parts, and reducing cycle times.

Impact:

Improving the kitting process for the C919 program. This entails less misplaced parts, cleaner work areas, simpler kitting process, and ease of use. This project is also to prepare the C919 program for an increase in production in 2024 and forward as the program expands.



Figure 3

C919 Nacelle produced by ST Engineering shown at the Singapore Airshow (JEC Composites)

Site Information:

ST Engineering

103 Chesapeake Park Plaza, Middle River, MD 21220

Laura Rathburn

Nacelle Production

Prepare C919 Program for an increase in demand from customers.

Future Work:

Test the kit carts on the shop floor and make adjustments as necessary to the stockroom layout and floor layout. We also have to make designated areas for incoming and outgoing kit carts in the C919 floor area.

Acknowledgments:

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