

Feb 1, 2021 – Meeting Minutes  
With Bernard Manderville and Zach Sperling  
(notes taken from Quinn Hubbarth)

Introductions:

Zach Sperling

- Mechanical Engineer at Boeing
- University of Kentucky

Bernard Manderville

- Worked for Bosch
- Graduated from RIT in 1998
- Background in Mechanical Engineering
- Less programming experience

General:

Problem Description

- Factory doesn't have a VR system, but others do
- High upfront costs and a volatile system that could easily become obsolete

Opportunities for VR

- Design Reviews
  - Engineering design reviews indicate how the components are assembled together
  - Tooling design reviews depict the functionality of the tooling
- Factory Simulations
  - A walk through of the 737Max Inlet factory
  - Allow users to move tooling, load components, etc.
- Customer Reviews
  - Allow external/internal customers to review Boeing Engineering/Tooling designs
  - Allow worldwide virtual labs to communicate for live reviews
- Training
  - Conceptualize a virtual training labs
  - For mechanics, engineers, or leadership
  - Train suppliers about the design

Ergonomics

- Studies have been conducted to see about long-term health, etc.,
- Mouse studies have been conducted to see how arthritis could be caused
- Figure out how a more complex ergonomic example could be developed

Action Items:

- Meet with Dr. Robb to receive mentorship on how we should go about building this system as well as give insights on a good solution to implement
- Follow up with Bernard on our solution choice before meeting on Monday, Feb 8<sup>th</sup> 2021