Clemson VR Team/Boeing 02/08/2021

Notes:

<u>NDA process</u>:
- It is in queue at Boeing and should take around 14 days to send to Clemson.
- Quoted NDA completion by 3-More weeks.

<u>Boeing PSC Team VR opportunities polling</u>:
- Clemson team voted on the training simulation and how we may work towards completing a factory simulation.
- We could potentially build off of the tool set sent by Bernard.

<u>1st Iteration</u> – "VR for Dummies":
- Unreal has features we may be interested in
- We need a "how to" on VR
  - Tutorial on how to develop in VR
    - Can build using Blueprints, C++, etc.

<u>2nd Iteration</u> - Does a cell location have a tool assigned to it?
- Riveting device or drill specified to that cell location and have an operator stand there using the drill inside the assembly area.
- High level activities will better help them refine their choice of actions with the cell.
- Replicates cells with different types of tools inside of the cell.
  * How the system can be set up:
  - Some suppliers own more rights to tooling parts
  - Varies by airplane model

<u>3rd Iteration</u> - Have the ability to upload VR programs on who is being trained:
- A defined list regarding the qualifications to help train employees
- Non-executives
  - See the part to move it around
  - Cannot make edits
- Engineers
  - Move parts around
  - Make edits
- Separate module depending on the size of the assembly
  - Production factory simulation
  - *Consider file size

<u>Hardware</u>:
- The Oculus Quest 2 is a standalone device but can connect to a higher end system for better performances
- Documentation for higher performing system will come along with specifications

Based on what we have tried so a program preserves file size

IC.IDO:
- https://www.esi-group.com/products/virtual-reality

*<u>Action Items</u>:

<u>Yates Robinson/Clemson Team</u>:
- Will provide an initial Release Plan
- Will provide an initial in-depth Gantt Chart
- Will provide agenda items to keep meeting on track/efficient

<u>Zachary Sperling</u>:
- Will provide Gantt Chart templates/examples

<u>Bernard Manderville</u>:
- Continue compiling information to share after NDA completion
- Potentially look into areas with most errors/ergonomics concerns regarding specific tooling