Development Plan: NAVSEA

Team Name: Sea++
Members:
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Features
● Hand placement tracking: the application should be able to track the position of a user’s hand and compare it to the position of various machine components
● Eye tracking: the application should be able to track a user’s gaze in order to determine that the user is looking at the correct component of the machine
● Hand gesture tracking: the application should be able to track hand gestures (such as twisting a knob or pushing a button) in order to determine whether a user has made the necessary gesture to manipulate a machine component
● Log verification: the application should be able to log when a user completes an instruction
● Instruction verification: the application should be able to use the hand placement tracking, eye tracking, and hand gesture tracking to detect whether a user has completed a step and advance the instructions

Timeline
Sprint 5
● Research existing API’s for hand and eye tracking in Hololens
● Implement eye tracking
● Implement hand placement tracking

Sprint 6
● Implement hand gesture tracking
● Develop an algorithm for calculating the confidence interval
● Combine all tracking with instructions such that instructions only proceed if the hand placement, hand gesture, and gaze align with the user having completed the step

Sprint 7
● Prepare poster draft
● Add logging to document user’s actions throughout maintenance procedure
● Practice presentation
Sprint 8
- Improve hand/eye tracking as necessary
- Improve poster & presentation