Alpha Presentation
AR Chair Adjustment Assistant
The Capstone Experience
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Project Overview

• Augmented Reality Adjustment Assistant for users of Herman Miller Chairs
• Identifies model of chair using smartphone camera
• Guides users through ergonomic adjustments
  ▪ Interactive 3D model highlights relevant part
  ▪ Tapping on highlighted part gives adjustment video and instructions
• Designed to replace paper instruction manuals
System Architecture

Microsoft Custom Vision -> Trains -> CoreML Model -> Swift

Swift -> Apple SceneKit

3D Assets
Screenshot – Detection Interface
Screenshot – Interactive Model
Screenshot – Adjustment Instructions

Front handles on the right and left sides of the seat.

In the proper position, you will have approximately three-fingers of clearance between the back of your knees and the seat edge.

To Increase or Decrease Depth: Lift your thigh weight from the front of the seat. Gently lift up the front handles on the right and left sides to disengage the locking seat depth adjustment. Slide seat forward or back into proper depth for use; then release downward to lock the seat.
Screenshot – Main Menu

Menu

Camera
Use your phone's camera to detect your Herman Miller chair.

Gallery
Select from our gallery of Herman Miller office chairs.

About Us
Learn more about Herman Miller and our range of products.
Screenshot – Gallery
What’s left to do?

• Expand library of available Herman Miller Models
• Continue to improve image recognition accuracy
• Implement search functionality
• Add analytics to app
  ▪ Usage statistics per chair
  ▪ Location usage analytics
Questions?