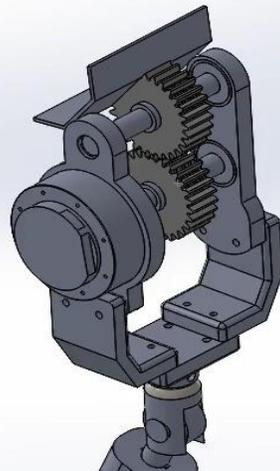
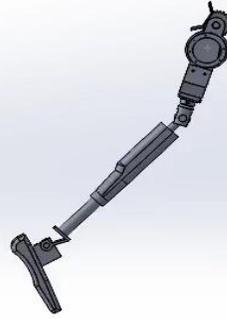

Mechanical Hip Prosthetic – Horizon Hip

AIDEN CAMISA, VICTORIA LYON,
MATT MARTINEZ, QUINN O'NEILL



Prototype 1 – Physical

- What Question are you trying to answer?
 - Is this design practical / intuitive?
 - Does this design facilitate movement in the sagittal plane?
 - Is this design actively actuated?
 - Is this manufacturable and user friendly?
- Methods
 - 3D Printing
 - Loaned material
 - Cardboard pieces
- Answer
 - Simple function \neq practical
 - Design is NOT intuitive or desirable
 - DOES facilitate movement actively
 - Hard to assemble & manufacture
 - Far distance from actual hip
- Informed & Updates
 - Reconsider overall design, reiterate
 - Prioritize slimmer, accessible designs with center of rotation closer to body



Prototype 1 – Virtual

- What Question are you trying to answer?
 - Is this more practical for daily wear?
 - Motion actively actuated in the sagittal plane?
- Methods
 - SolidWorks
 - SolidWorks Motion Analysis

- Answer
 - Reduces bulkiness

- Informed & Updates

Reduces fail points
Closer center of rotation
Gear system for power transmission necessary
Moving forward with this design
Implement battery

Thank you

