

Shoulder

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In the realm of robotics, the pursuit of emulating the marvels of human anatomy has ushered in a new era of innovation. This paper unveils the intricate landscape of biomimetic engineering as we delve into the design intricacies of a biomimetic shoulder, a pivotal component within the context of a full human robot project. Drawing inspiration from the remarkable functionality of the human shoulder, we embark on a journey to craft a robotic counterpart that not only replicates but also augments human-like motion and adaptability. Through meticulous biomechanical analysis and precision engineering, we delve into the convergence of nature's design and cutting-edge technology, illuminating the path toward the seamless integration of man and machine.

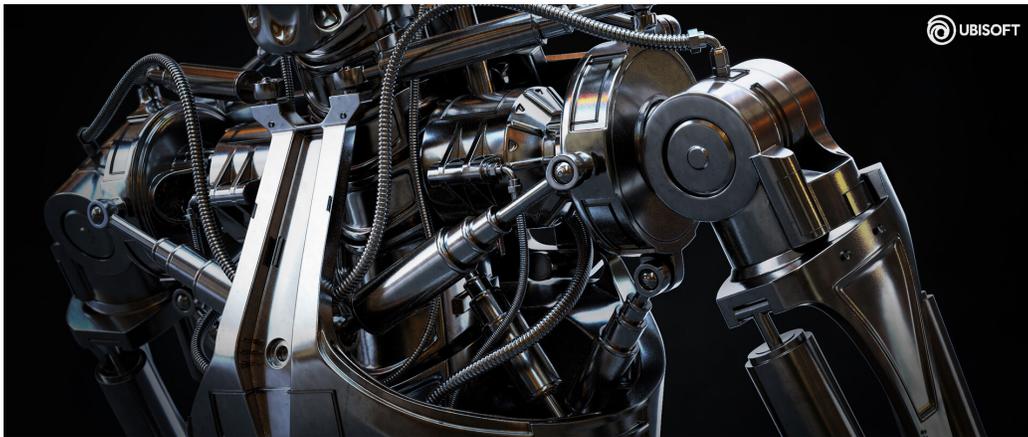


Figure 1: Model render by Jason De Loos artstation.com/jasondeloos

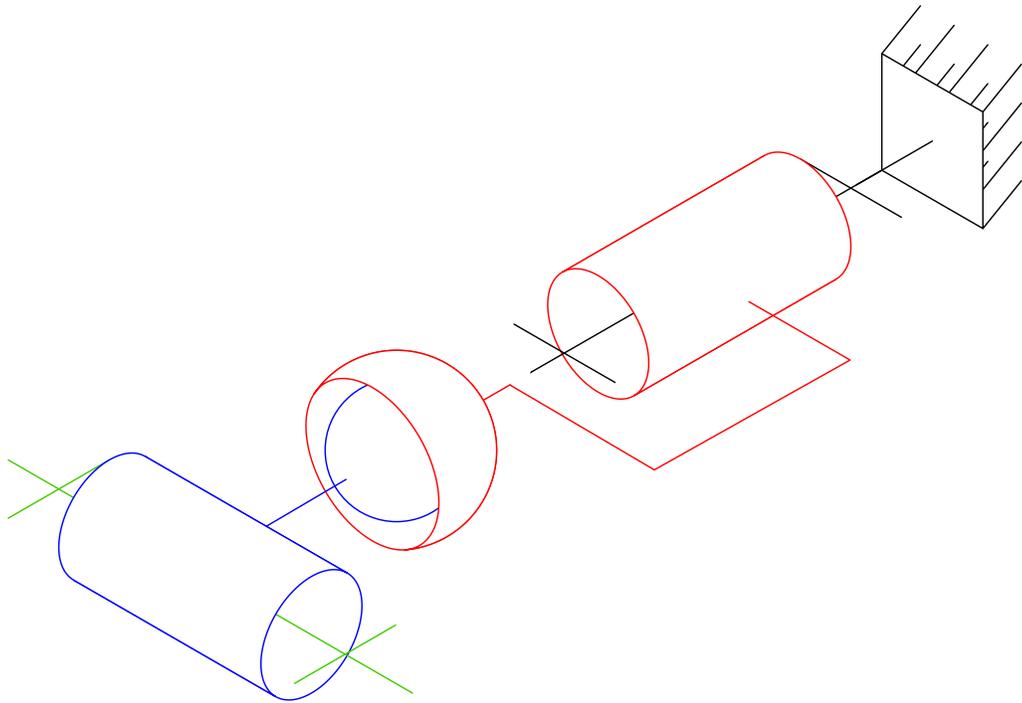


Figure 2: Soulard's kinematic diagram