



SNS COLLEGE OF TECHNOLOGY

Coimbatore-35
An Autonomous Institution

Accredited by NBA – AICTE and Accredited by NAAC – UGC with ‘A+’
Grade Approved by AICTE, New Delhi & Affiliated to Anna University,
Chennai



DEPARTMENT OF AEROSPACE ENGINEERING

19ASZ301– ROBOTICS & AUTOMATION IN SPACE

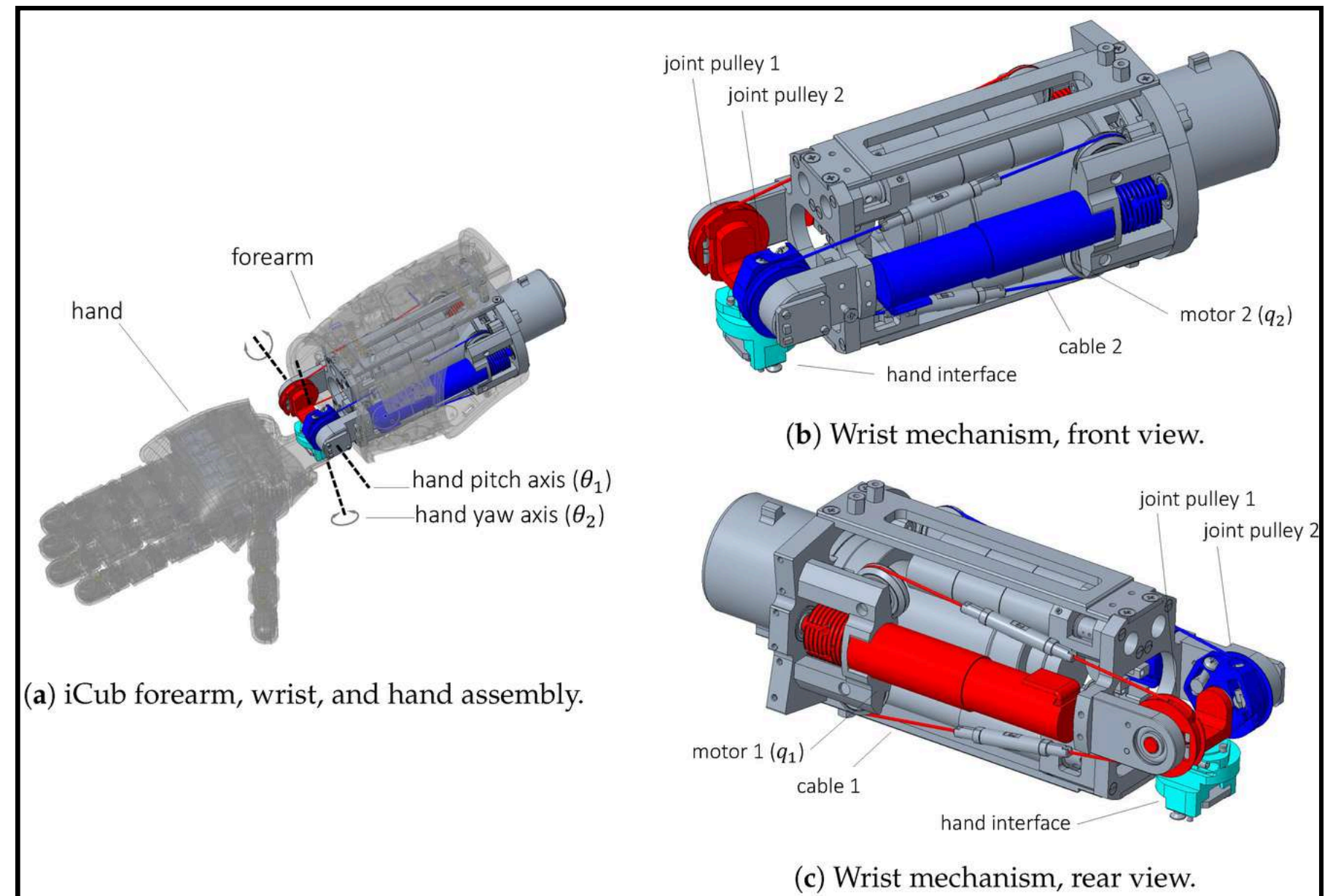
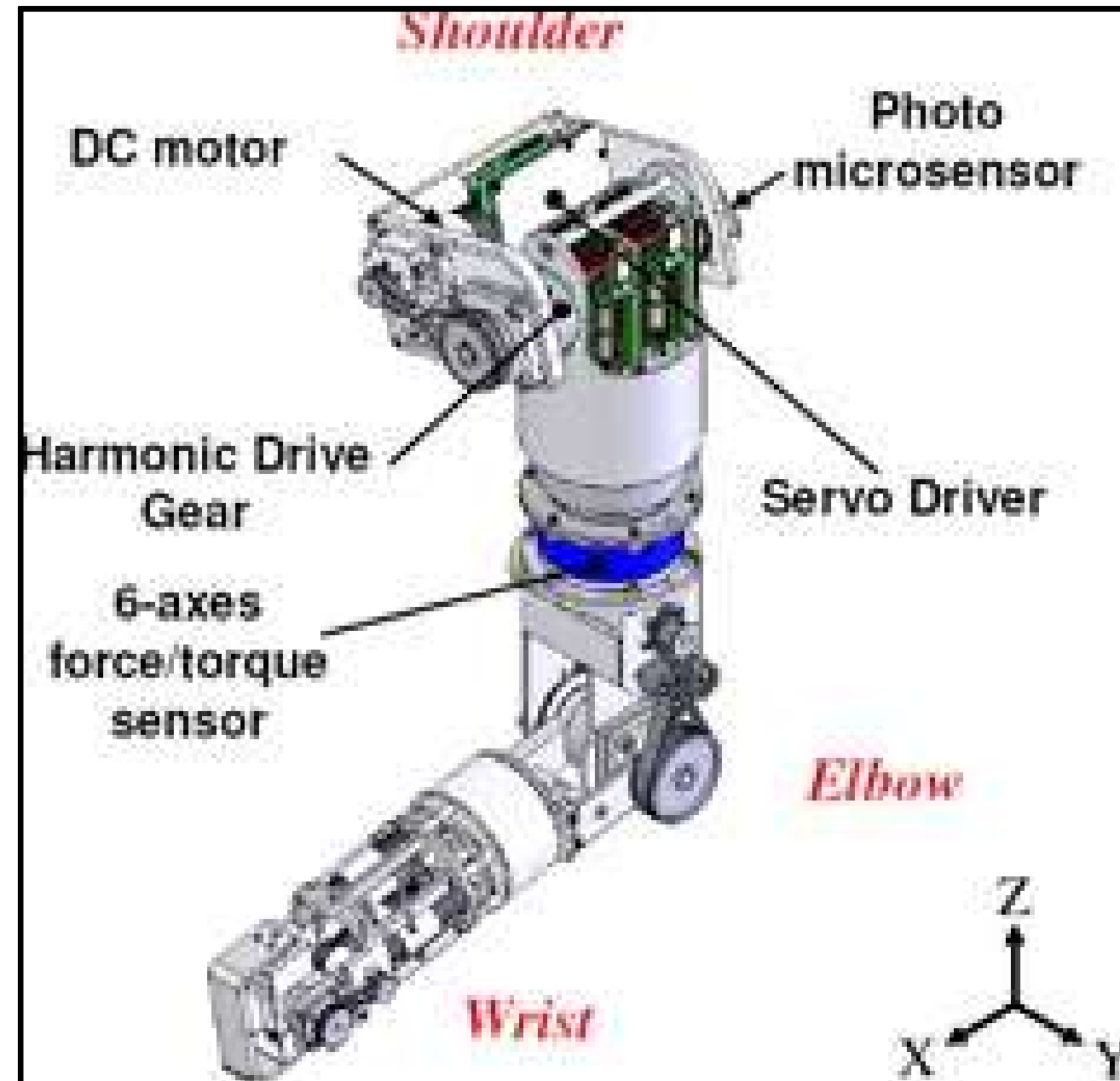
III YEAR VI SEM

UNIT 2 –INTRODUCTION TO ROBOTICS

TOPIC - WRIST CONFIGURATIONS

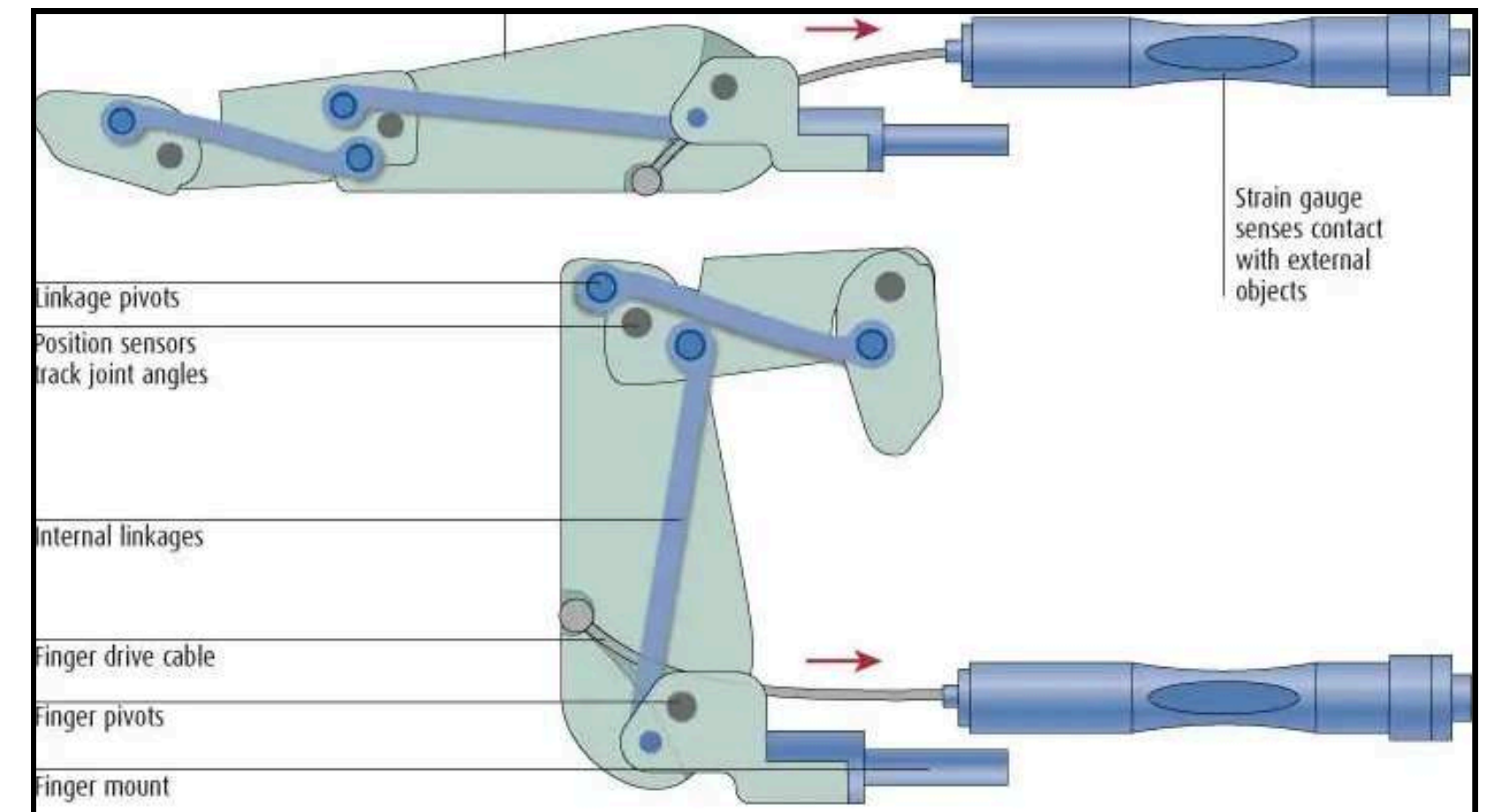
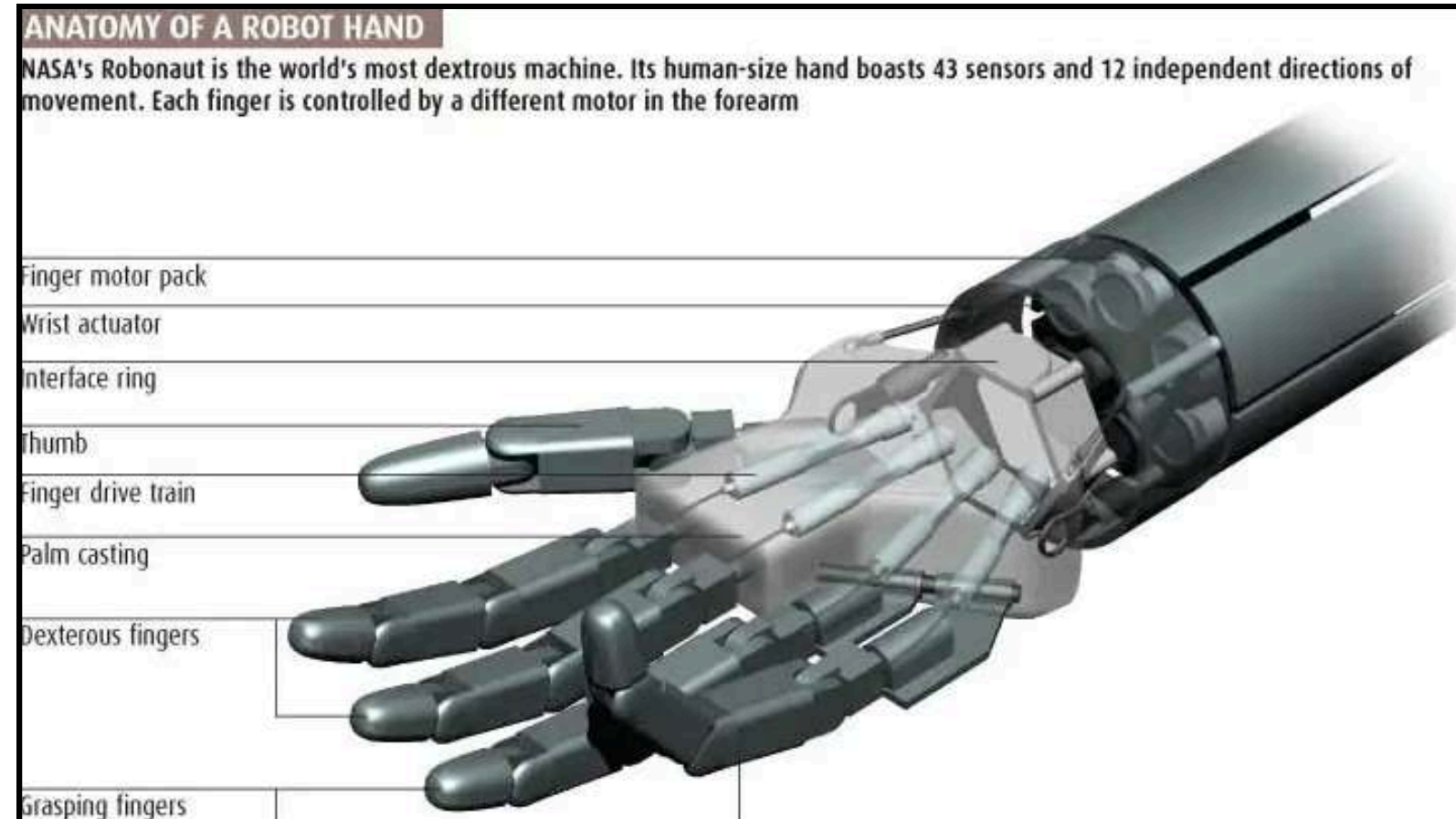


DIAGRAMS





DIAGRAMS





WRIST CONFIGURATIONS

Wrist Type	DOF	Motion Axes	Applications
Roll–Pitch–Yaw (Spherical wrist)	3	Rotation in all 3 axes	Welding, painting, precise manipulation
Roll–Pitch	2	Rotation in two axes	Assembly, less complex tasks
Roll only	1	Simple rotation	Conveyor alignment, positioning
Offset Wrist	3	Spherical, but offset from arm	Avoids collisions in tight spaces
Inline Wrist	3	All axes aligned with forearm	Simplifies programming, good for long reach



Thank You