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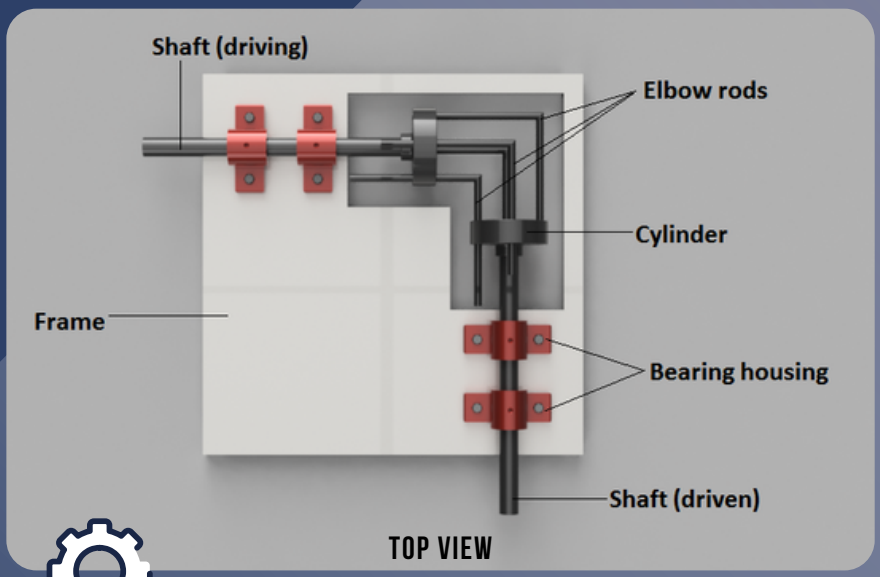
भारतीय प्रौद्योगिकी संस्थान हैदराबाद
Indian Institute of Technology Hyderabad

MINI PROJECT
Department of MAE

GEARLESS POWER TRANSMISSION USING ELBOW ROD MECHANISM



TOP VIEW

SCAN THIS QR CODE

TO ACCESS OUR FINAL PRESENTATION AND VIDEO DEMONSTRATION

SKIP THE GEARS, KEEP IT MOVING!

OBJECTIVE

TO TRANSMIT POWER BETWEEN PERPENDICULAR SHAFTS WITHOUT USING GEARS, BY EMPLOYING A SIMPLE ELBOW ROD LINKAGE THAT REDUCES NOISE, GEAR MAINTENANCE, AND COMPLEXITY.

WORKING PRINCIPLE

THREE RODS CONNECTED THROUGH ELBOW JOINTS CONVERT ROTARY MOTION FROM AN INPUT SHAFT TO AN OUTPUT SHAFT AT 90° USING CYCLIC CRANK MOTION, ALLOWING CONTINUOUS AND SMOOTH GEARLESS TRANSMISSION.

ADVANTAGES

- ELIMINATES GEAR MESHING AND BACKLASH
- REDUCES MANUFACTURING AND OPERATIONAL COST
- REQUIRES LOWER MAINTENANCE
- USED MAJORLY FOR LOW TORQUE TRANSMISSION

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