

# ABSTRACT

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The objective of this work is to design a bicycle drive system to replace the conventional chain drive system. The conventional drive system has the associated problems of wear heavy weight, high cost in addition to jamming of chain, if the drive system is not properly lubricated. It has also the associated problems of slippage of chain from its sprocket and more noise, poor reliability; Gear Mechanism improves the efficiency and reliability. In our project, the conventional chain and sprocket mechanism is replaced by Gear Mechanism. With low cost and light weight, the working of Gear gives the smooth operation and less noise. The design is too simple. The prototype model for the Freewheel mechanism has been fabricated and the performance studied. It has been found that the Mechanism is the best replacement for the conventional chain drive mechanism.

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