

ABSTRACT

The trend of bicycle conversion kits is increasing in many countries, especially in developing countries which have problems with traffic jams and air pollution. According to the Global Bicycle Electric Conversion Kit Market 2020-2024 report published by Technavio, the bicycle conversion kit market is expected to grow 12% during the 2020-2024 period. Factors driving the growth of this market include awareness of the health and environmental benefits of cycling, demand for alternative mobility that is cheaper and more environmentally friendly, as well as technological developments and innovations in bicycle conversion kits.

However, in its use, many experience difficulties in the installation process due to the large number of cables that need to be connected which causes people to be reluctant to convert, therefore innovation is needed in bicycle conversion kits.

Wireless control on bicycle conversion kits is one of the innovations following the development of electric bicycle technology in the world. Wireless control on bicycle conversion kits also provides benefits for users who want to convert their ordinary bicycle into an electric bicycle, only need to install the motor, battery, and wireless control module on their bicycle. Wireless control on the bicycle conversion kit uses radio frequency technology that can communicate with the controller module installed on the bicycle with a small delay of between 2-3ms and simplifies the installation process which only takes 20 minutes.

Keywords: Wireless Control, Conversion Kit, Electric bicycle.