

Design and development of inexpensive bicycle – Wooden folding bicycle

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This paper seeks to contribute to the awareness of society in the use of bikes as a healthy environment means intending to humanize the urban transport. For this, a folding bike was designed for short trips within an urban area or long trips using the alternative intermodal (bike - bus – bike / bike - subway - bike / car - bike - car).

This bike has a different structural concept than conventional bikes. Its contribution lies in the exploration of wood, a material traditionally used for structural purposes for the production of other products. In the case of industrial manufacturing processes, wood is an ecological and environmental friendly material (it is renewable, recyclable, non toxic and biodegradable). On the other hand, the possibility to reduce the volume makes storage and transport easier, both inside a car or public service units.

The prototype has been developed considering the real material processes of rolling, gluing and molding wood to manufacture the components that comprise the structure.