

DIP. MECHANICAL ENGINEERING

MEC332 – MECHANICAL ENGINEERING DESIGN

PROJECT NAME:

BICYCLE HYBRID ROLLER

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ABSTRACT

This project name is Bicycle hybrid Roller. The design of this roller is combination of a bicycle V-stand and a bicycle indoor trainer which known as roller.

The purpose of this project is to help beginners to be able to stable on the roller. The nature of the roller is not easy for first time user. Therefore building a V-Stand at the roller helps the cyclist to be able to stable themselves on the roller. With this project the cyclists can still keep on cycle indoors even if it is raining outside. Through this the cyclists can remain fit without worrying about the unstable weather. Keep on staying fit is very important for cyclists especially when tournaments are around the corner.

The problem with the current roller is that it is not friendly user for beginners. For pro cyclist it is not a problem. Cycling on the road itself is not similar as riding on the roller. On the roller we have to find our stability before able to cycle on it. This creates problem where time is wasted just on finding stability. Besides that without proper stability the cyclist will frequently fall down. This will not only hurt the cyclist itself but also will damage the bicycle and reduces its life span. Other than that cyclist won't be able to train when it is raining outside. In overall safety factor is this project main focus.

This product are potential to commercialize because of characterize and innovation on this product are build based on problem of people that use bicycle trainer in market before. From the feedback, a main problem of bicycle trainer in market now is a people always falling down from their roller and the product use lot of space. So with Bicycle Hybrid Roller people can use won't have to worry about falling down from their roller and this product also portable.

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