

Abstract

Riding a bicycle in the road with motor vehicle would be dangerous especially at night. Because there are no electrical devices on a bike, it would be hard to send signals to motor vehicles indicating the riding direction in advance. Our solution is to design a wearable, selfpowered electronic device to improve bicyclers' road safety. The Smart Helmet is a smart electronic helmet. It can react to the changes of acceleration and the motion of bicycle riders' head and trigger the lights to notify car drivers when the riders intend to take turns or change lanes. The whole device is selfpowered so riders do not need other extra parts except one smart helmet.