

BIKING SIGNAL

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“In the Name of Allah, Most Gracious and Most Merciful”

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ABSTRACT

This project develops for bikers that always going to an event at night with their club or their friends. This waterproof bag signal will help people know where you're headed when you're biking, we named this project as Turn Signal Biking Bag. This will increasing the safety of the bikers and prevents an accident to the bikers.

We'll use single core wire as replacement to conductive thread and Velcro are applied to the jacket and the bag so its will wearable and washables when you're done. This project use LilyPad Arduino Main Board to install program instruction to conduct this system properly. We use LED as a signal and 2 button push to complete our circuit. And to let the user know which their jacket function or not, we put audio output, buzzer, so if the buzzer buzzing that means the jacket is functioning.

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CHAPTER 1

INTRODUCTION

1.1 BACKGROUND OF PROJECT

THE EMERGING FIELD of smart textiles, known as "Wearable" or e-textiles, has gained considerable momentum in the past few years as enthusiasts continue to build more and more complex projects with microcontrollers that keep growing in power while shrinking in size.

The Lily Pad microcontroller board helped bring a large developer community into Wearable's with its debut in 2007 since then it has allowed many of those who dream of blending technology and everyday clothing to build out their ideas. The diminutive microprocessor, designed to be incorporated into apparel or other soft goods, has easy connectors that integrate with a range of sensors and actuators with conductive thread. This combination opens a new platform for technology and fashion, allowing for easy projects like embedded LEDs, or more advanced projects like motorized, moving components that react from environmental conditions.

Since the debut of the Lily pad, there have been advancements in the open source wearable technology arena, with the Adafruit Flora being the next generation of that field, providing more advanced specs in an even smaller package.

One of the project is signal biking jacket. This signal biking jacket is created by Leach Beuchley. A jacket with turn signal to let people know where cyclist headed when their cyclist. This jacket is built with Led Lilypad, Arduino Lilypad Power Supply Lilypad and conductive thread . jacket that created by Leach Beuchley can be washable . This happens because Lilypad Component was created to be waterproof .