

# Praktik Pembuatan Akun Wokwi dan Github

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## Abstract

This experiment aimed to explore the practical process of creating and managing accounts on GitHub and Wokwi, two widely used platforms for software development and hardware simulation. The experiment was conducted by registering new accounts on both platforms, configuring user profiles, and testing basic functionalities such as repository creation on GitHub and circuit simulation on Wokwi.

The main results showed that GitHub provides an intuitive interface for version control, facilitating collaboration through repositories, commits, and branches. Meanwhile, Wokwi offers an effective environment for simulating microcontroller-based projects, allowing users to test and debug circuits virtually.

In conclusion, the experiment demonstrated the ease of account setup and the fundamental features of both platforms. These tools are essential for software developers and embedded system enthusiasts, providing a practical approach to project development and collaboration.

Keywords—*Github, Wokwi, circuit simulation, microcontroller, collaboration.*

## 1. Introduction

In today's digital era, software development and embedded systems play a crucial role in various fields, including information technology, industry, and education. GitHub and Wokwi are two widely used platforms that support developers and technology enthusiasts in their project development processes. GitHub provides a hosting service for Git-based version control, enabling collaboration in software development through features such as repositories, commits, and branches. Meanwhile, Wokwi is a simulation platform that allows users to design, test, and debug microcontroller-based projects virtually.

This practical experiment aims to understand the process of creating accounts on GitHub and Wokwi, as well as to explore the basic features provided by both platforms. Having a GitHub account allows users to store and manage their project source code efficiently, while a Wokwi account enables users to simulate electronic circuits without requiring physical hardware. Through this experiment, students are expected to master the initial steps in using these platforms, which will serve as a fundamental skill in software and hardware-based project development.

### 1.1 Background of the IoT Practicum

The Internet of Things (IoT) has become one of the fastest-growing technological innovations in recent years. IoT connects physical devices to the internet, enabling communication and automation in various fields such as industry, healthcare, agriculture, and smart homes. In the development of IoT-based systems, the use of supporting platforms like **GitHub** and **Wokwi** is essential.

GitHub serves as a version control system that helps developers store, manage, and collaborate on software development for IoT projects. Meanwhile, Wokwi provides a simulation environment that allows users to design, test, and debug **microcontroller-based** projects virtually before implementing them with actual hardware. These platforms enable IoT system development to be more efficient and accessible without requiring physical devices in the early stages.

This practicum is conducted to provide students with a fundamental understanding of how to use GitHub and Wokwi in the context of IoT project development. By mastering these platforms, students will be better prepared to develop and manage IoT projects in the future.

## 1.2 Objectives of the Experiment

This experiment aims to:

1. Understand the process of creating accounts on **GitHub** and **Wokwi**.
2. Explore the basic features available on both platforms.
3. Learn how to create and manage repositories on GitHub as part of version control.
4. Utilize Wokwi to simulate **microcontroller-based** projects without physical hardware.
5. Improve students' skills in leveraging cloud-based development tools for IoT projects.

## 2. Methodology

### 2.1 Tools & Materials

In the practice of creating Wokwi and GitHub accounts, the following tools and materials are used:

- **Hardware:** Laptop with an internet connection
- **Software & Platforms:**
  - Google Chrome
  - Wokwi
  - Github
- **Email Account** for registering in Wokwi and Github

### 2.2 Implementation Steps (Langkah Implementasi)

The following steps outline the system setup, coding, and testing process on Wokwi and GitHub:

#### A. Creating a Wokwi Account

1. Open the Wokwi website at <https://wokwi.com>
2. Click "Sign Up" and choose Google for registration
3. Enter account Google
4. Log in to Wokwi to start using the platform

#### B. Creating a GitHub Account

1. Open the GitHub website at <https://github.com>
2. Click "Sign Up" and enter an email, username, and password
3. Verify your email using the code sent by GitHub
4. Choose account settings according to your needs
5. Log in to GitHub and access the main dashboard

### **3. Results and Discussion (Hasil dan Pembahasan)**

#### **3.1 Experimental Results (Hasil Eksperimen)**

