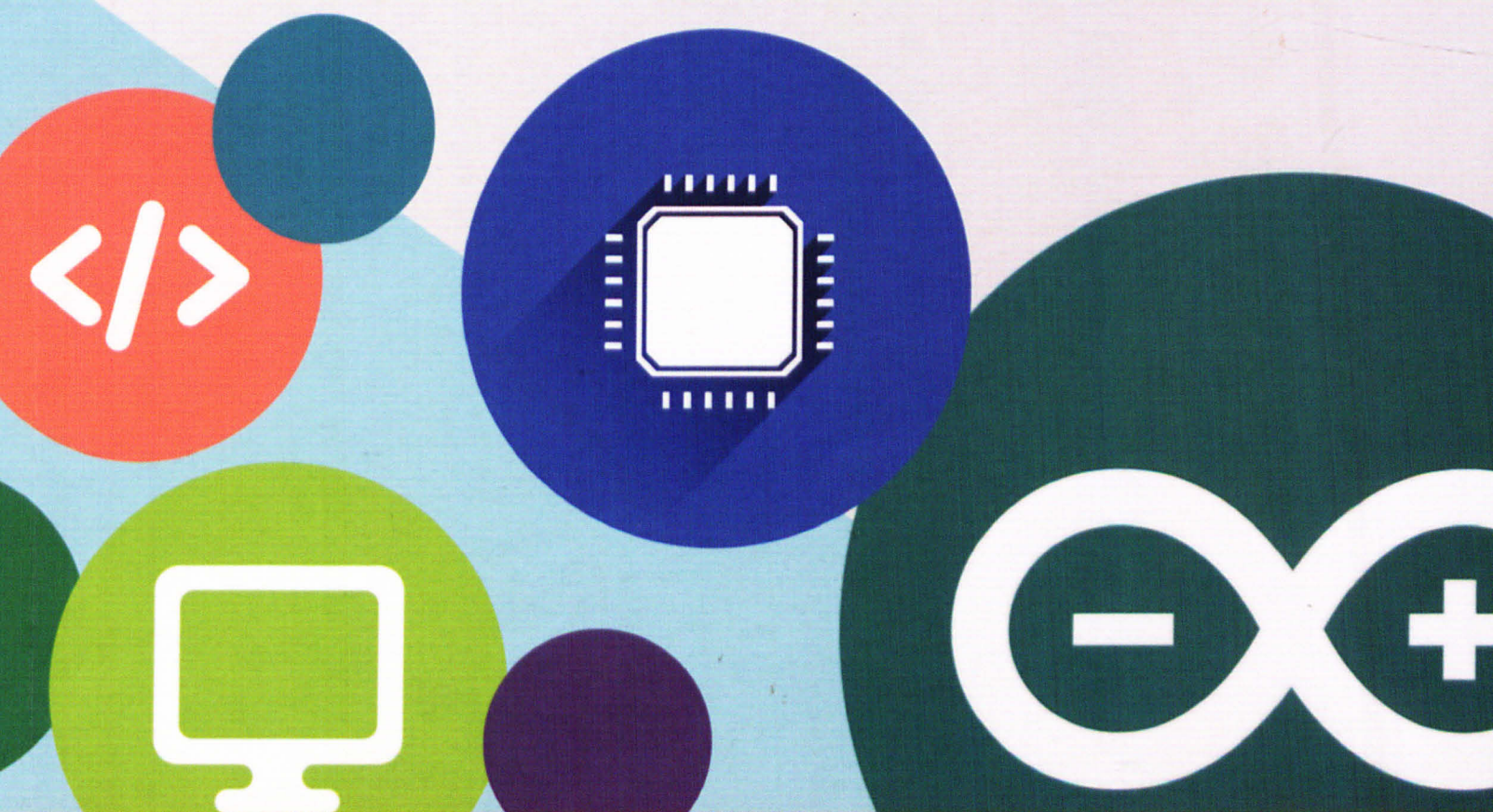




The ABCs of Arduino



Learning Electronics and
Programming Step by Step



Kartinah Zen
Noor Aishah Nabilah
Hushairi Zen

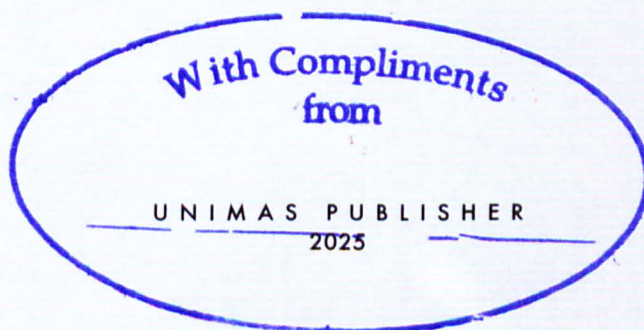
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Published in Malaysia by
UNIMAS Publisher,
Universiti Malaysia Sarawak,
94300 Kota Samarahan,
Sarawak, Malaysia.

Printed in Malaysia by
Lee Ming Press Sdn Bhd
Lot 2050, Jalan Swasta,
Pending Industrial Estate,
93450 Kuching, Sarawak.



Cataloguing-in-Publication Data

Perpustakaan Negara Malaysia

A catalogue record for this book is available
from the National Library of Malaysia

ISBN 978-967-0054-91-9

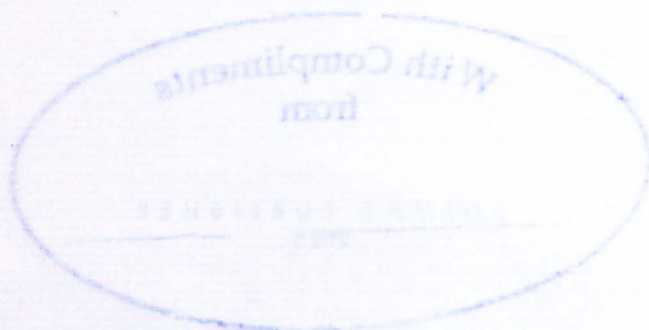


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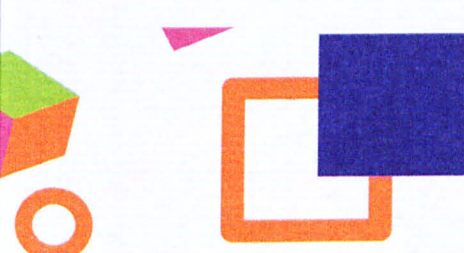
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PREFACE

Welcome to the book "The ABCs of Arduino - Learning Electronics and Programming Step by Step" This book is made to help people learn about electronics and programming in an easy way. We'll use Arduino because it's simple to use.

Sometimes, learning about electronics can seem hard. But, it doesn't need to be. This book will teach you the basics. You'll learn about things called microcontrollers, which are like small computers. You'll also learn about other parts that go with them. And, you'll learn about sensors, which are things that help us understand what's going on around us.

The fun part of Arduino is not just about the electronics parts, but also about the coding. Coding is like giving instructions to your microcontroller. We use a special tool called the Arduino IDE to write and send these instructions. This book will teach you how to code. You'll learn about coding rules (syntax), how to save information (variables and data types), and how to do tasks (functions). You'll also learn about decision-making in coding (conditional statements and loops).

After you learn the basics, the book will teach you more about how to get data from sensors (input) and how to control parts like lights or motors (output).

Finally, you'll learn how to fix problems when they come up. Fixing problems is a big part of learning how to code and work with electronics. It's okay to make mistakes because that's how we learn.

You don't need to know anything about coding or electronics before starting this book. All you need is to be curious and willing to learn.

So, whether you're someone who loves to try new things, a student wanting to learn more, or a professional looking to grow, this book will help you learn about Arduino coding and electronics. I hope this book helps you see how fun and exciting Arduino can be. Let's start learning together!

Kartinah Zen
August 2023

