

# MAKE

**Python Toolbox for  
Robotics Education**

Carston Wiebe  
[cwiebe3@huskers.unl.edu](mailto:cwiebe3@huskers.unl.edu)

2024-04  
Version 3.0

Abstract TODO

---

## REVISIONS

DATE	CHANGE(S)	AUTHOR(S)
2024-04-29	translated doc to latex	C. Wiebe
2024-04-22	translated doc to markdown	C. Wiebe
2024-04-21	largemotor & button	C. Wiebe
2024-04-12	dc_motors, servos, stopall	C. Wiebe
2024-04-10	PHILOSOPHY	C. Wiebe
2024-04-06	techdoc creation	C. Wiebe

Contents

<b>1</b>	<b>INTRODUCTION</b>	<b>4</b>
1.1	PURPOSE . . . . .	4
1.2	DESCRIPTION . . . . .	4
1.3	PHILOSOPHY . . . . .	4
<b>2</b>	<b>CONTENT</b>	<b>5</b>

# 1 INTRODUCTION

## 1.1 PURPOSE

Created for the University of Nebraska-Lincoln's SPARK student organization

## 1.2 DESCRIPTION

Wrapper for CIRCUITPython (also written in Python) to be used on the MakerPI RP2040 in order to allow the simple creation of code by elementary and middle school students for educational purposes.

## 1.3 PHILOSOPHY

Classes and functions should be written with ease of use in mind— a minimum amount of knowledge on coding should be assumed and expected, and the users may not have access to a proper IDE with features like intelligent syntax highlighting.

As such, convention should be disregarded when it conflicts with ease of understanding; for instance, *all* names should be lowercase only so as to prevent simple issues with capitalization that young users might encounter (and that won't be caught by the computer without an IDE).

(Incomplete) list of rules:

- all flatcase (lowercase, no underscores)
- prioritize one-word names
- if possible, lines should read like English; i.e. `until( button.pressed )`
- use simple words without complicated spelling
- abstract complexities away; i.e. rather than require users to input `board.GP10`, create a dict with the key 10 and value `board.GP10`

## 2 CONTENT

TODO content