

Contents

► Issue 85 ► September 2019

Cover Feature

22 Raspberry Pi 4 Desktop test

Regulars

- 06 World of Raspberry Pi
- 92 Your letters
- 97 Next Month
- 98 The Final Word

Project Showcases

- 08 Pi Fighter
- 12 Immersive Bar
- 14 MyPi
- 18 Bird Feeder Monitor

12



Immersive Bar

DISCLAIMER: Some of the tools and techniques shown in The MagPi magazine are dangerous unless used with skill, experience, and appropriate personal protection equipment. While we attempt to guide the reader, ultimately you are responsible for your own safety and understanding the limits of yourself and your equipment. Children should be supervised. Raspberry Pi Trading Ltd does not accept responsibility for any injuries, damage to equipment, or costs incurred from projects, tutorials or suggestions in The MagPi magazine. Laws and regulations covering many of the topics in The MagPi magazine are different between countries, and are always subject to change. You are responsible for understanding the requirements in your jurisdiction and ensuring that you comply with them. Some manufacturers place limits on the size of their hardware which some projects or suggestions in The MagPi magazine may go beyond. It is your responsibility to understand the manufacturer's limits.



22

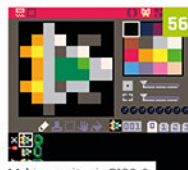


MyPi



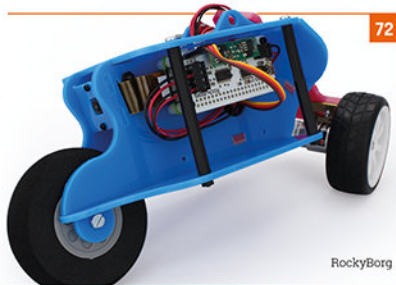
40

Rocket Rescue – Pi Bakery



56

Making sprites in PICO-8



72

RockyBorg



84

Denise Leonard interview

Tutorials

- 32 Get started with Mathematica
- 36 Build a low-cost robot part 2
- 40 Rocket Rescue – Pi Bakery
- 48 Build your own NAS
- 52 GUI combo boxes and lists
- 56 Making sprites in PICO-8
- 60 GPIO music box

The Big Feature

64



Back to school

Reviews

- 72 RockyBorg
- 74 Pi2Go Mk 2
- 76 LibreELEC on Raspberry Pi 4
- 78 NanoSound DAC 2 Pro
- 80 Top 10 media players
- 82 Learn web design

Community

- 84 Denise Leonard interview
- 86 This Month in Raspberry Pi
- 90 Events

WIN ONE OF TEN RASPBERRY PI 4 CASES



95