

25 Classroom Projects

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The ARDUINO® Classroom

Inside the Book

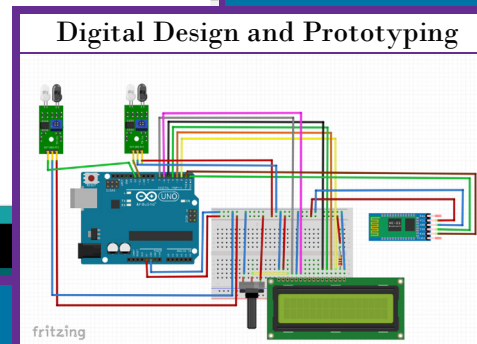
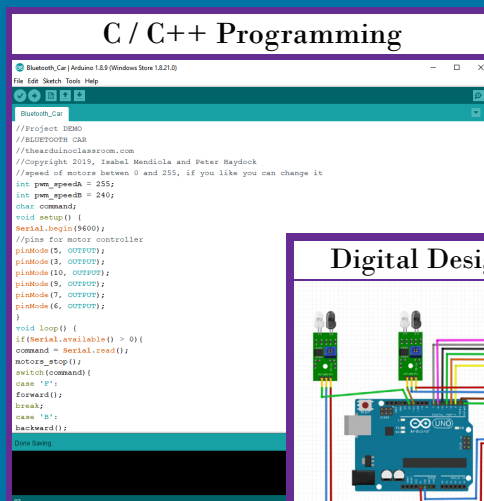
- 25 Classroom Tested Projects
- Wi-Fi®, Bluetooth®, GPS, & Cellular
- Standards Alignments
- 100+ Project Extensions
- Materials Lists
- Tested Code
- Technical Diagrams and Photos
- Assessments

Integrates

- STEAM
- C / C++ Programming Basics
- Digital Prototyping
- Engineering Design
- Project Management

Free with Website Registration

- Project Updates
- Community Ideas
- Project Submissions



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and
Peter G. Haydock

www.thearduinoclassroom.com

Premium Website Membership

- Videos of Projects
- Classroom Presentations
- Images, Diagrams, and Code



Integrating programming, design,
and prototyping into Science,
Technology, Engineering, Arts, and
Math (STEAM) classrooms with
Arduino® IoT based projects.

Projects Overview											
	Project	Time to Complete (hr:min) Project / Extensions	Difficulty	Science				Technology	Engineering	Allied Arts	Math
				Earth	Life	Chemistry	Physics				
Section 1 Bluetooth®	Voice Controlled Lights	0:45 /0:45	Intermediate	✓	✓		✓	✓	✓	✓	✓
	Remote LCD	1:00 /0:45	Intermediate	✓	✓	✓	✓	✓	✓	✓	✓
	Text an LED Matrix	1:00 /0:45	Intermediate				✓	✓	✓	✓	✓
	Speedometer	1:15 /0:45	Intermediate		✓		✓	✓	✓	✓	✓
	Robot	1:30 /0:45	Intermediate	✓	✓		✓	✓	✓	✓	✓
	Robotic Arm	1:30 /0:45	Advanced	✓	✓		✓	✓	✓	✓	✓
	Voice Controlled Car	1:45 /0:45	Advanced	✓	✓	✓	✓	✓	✓	✓	✓
	Drone	1:45 /0:45	Intermediate	✓	✓	✓	✓	✓	✓	✓	✓
	Health Monitor	1:30 /1:00	Advanced	✓	✓	✓	✓	✓	✓	✓	✓
	Home Control	1:00 /0:45	Intermediate	✓	✓	✓	✓	✓	✓	✓	✓
	Environmental Monitoring	1:45 /1:00	Intermediate	✓	✓	✓	✓	✓	✓	✓	✓
Section 2 Wi-Fi®	Remote Home Control	1:00 /0:45	Intermediate	✓	✓	✓	✓	✓	✓		✓
	Water Monitoring	1:30 /1:00	Intermediate	✓	✓	✓	✓	✓	✓		✓
	Text the LED	1:30 /0:45	Intermediate	✓	✓	✓	✓	✓	✓	✓	✓
	Smoke & Gas Notifier	1:30 /1:00	Intermediate	✓	✓	✓	✓	✓	✓		✓
	Fido Feeder	1:30 /0:45	Intermediate	✓	✓	✓	✓	✓	✓	✓	✓
	Robotic Hand	1:30 / 1:00	Intermediate	✓	✓	✓	✓	✓	✓	✓	✓
	Food Quality	1:30 /1:00	Intermediate	✓	✓	✓	✓	✓	✓	✓	✓
	Trash Sorter	2;00 /1:00	Advanced		✓	✓	✓	✓	✓	✓	✓
Weather Station	1:45 /1:00	Advanced	✓	✓	✓	✓	✓	✓		✓	
Section 3 Cellular and GPS	Fire Alarm	1:30 /0:45	Intermediate	✓	✓	✓	✓	✓	✓		✓
	Location Data	1:30 /0:45	Intermediate	✓	✓	✓	✓	✓	✓	✓	✓
	Agriculture	2:00 /1:00	Intermediate	✓	✓	✓	✓	✓	✓	✓	✓
	SMS and Calls	1:30 /1:00	Advanced	✓	✓	✓	✓	✓	✓	✓	✓
	Gas Leak	1:30 /1:00	Intermediate	✓	✓	✓	✓	✓	✓		✓

✓ = Full match to standards ✓ = Supports standards with extensions ✓ = Supports standards with problem