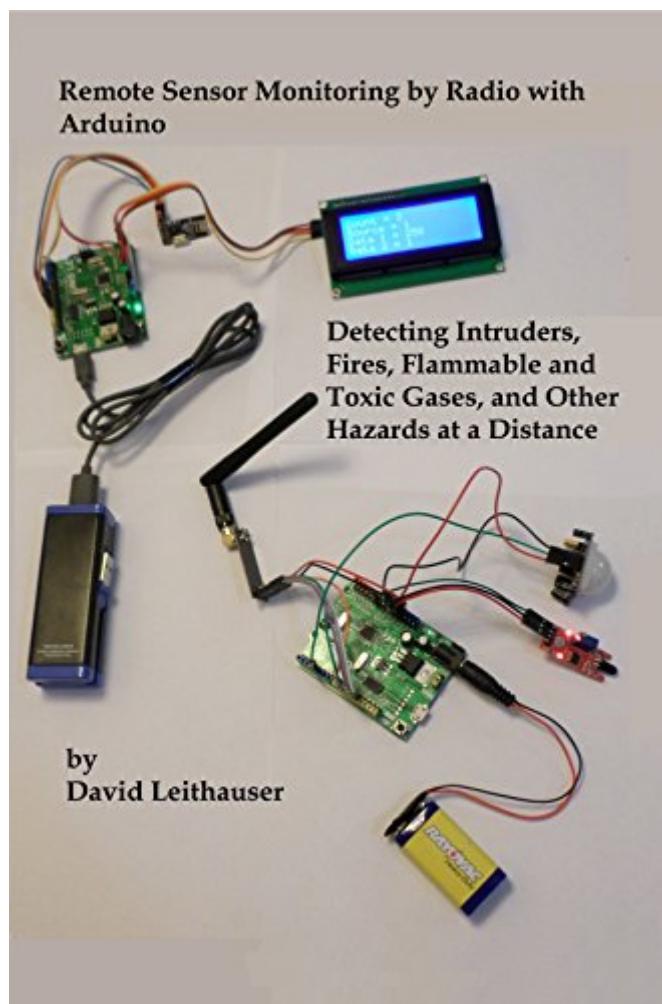


The book was found

Remote Sensor Monitoring By Radio With Arduino: Detecting Intruders, Fires, Flammable And Toxic Gases, And Other Hazards At A Distance



Synopsis

This book is about connecting sensors and radio transceivers to an Arduino so that you can monitor the sensor readings from a distance. You can put the Arduino sensor package miles away from the receiving station, in your front or back yard, or even in your home like your basement or attic. Although the techniques described in this book will work with any type of sensor input, the book will focus on sensors that detect potentially dangerous or disruptive conditions. These will include intruders, fires, temperature extremes (both hot and cold), flammable gases, toxic gases like pollution, power failures, floods (including minor “floods” like a pipe bursting), and other situations. For the radio communications, we will use the nRF24L01 transceiver. This inexpensive chip (usually around \$1.00 on EBay) interfaces easily with the Arduino and can both transmit and receive data. It has an advertised range of 100 meters (about 328 feet) for the basic unit, although in actual practice it may be closer to 30 meters (about 98 feet). However, with an optional antenna the range is reported to be 1,000 meters (1 km, about .6 miles). In the first five chapters, I explain the hardware and software aspects of this handy transceiver, enabling you to set up the communications. I even explain how to set up repeater transmitters that can relay the signal from locations beyond the 1 km range. Thus, this book provides ideas for how to use the nRF24L01 transceiver for many purposes. In the chapters after these five chapters on the basics of the nRF24L01, I discuss attaching and operating various sensors, explaining how to set them up and integrate them into the transmission software. The chapters will be divided by hazards you can monitor, not specific sensors, so one chapter may include several different types of sensors that can be used to detect the same hazard. The main sketches in this book can be downloaded from any of these

URLs <https://github.com/DavidLeithauser/remote-sensors-Arduino/tree/master> <http://LeithauserResearch.com/RemoteSensors.zip> <http://lrfiles.com/RemoteSensors.zip> <https://app.box.com/s/xsf7e6gs0f5jetijvcq7zd38cfwcu53r> See the ReadMe.txt file in the archive for advice on using the files. All of the sketches in this book have been tested and work as described. If you have any problem running them, you can contact the author at Leithauser@aol.com. Please use subject line Remote Sensor Book on the email.

Book Information

File Size: 3859 KB

Print Length: 120 pages

Page Numbers Source ISBN: 153464055X

Simultaneous Device Usage: Unlimited

Publisher: Leithauser Research; 1 edition (June 16, 2016)

Publication Date: June 16, 2016

Sold by: Digital Services LLC

Language: English

ASIN: B01H7Z6ZYA

Text-to-Speech: Enabled

X-Ray: Not Enabled

Word Wise: Not Enabled

Lending: Not Enabled

Enhanced Typesetting: Enabled

Best Sellers Rank: #83,209 Paid in Kindle Store (See Top 100 Paid in Kindle Store) #9
in Books > Engineering & Transportation > Engineering > Electrical & Electronics > Electronics > Sensors #11 in Kindle Store > Kindle eBooks > Engineering & Transportation > Engineering > Electrical & Electronics > Digital Design #36 in Books > Computers & Technology > Hardware & DIY > Single Board Computers

Customer Reviews

would purchase again

Very good book. The code for the repeaters is quite useful. Haven't found the example code online yet, but I trust the author will post it. There are some neat projects. Could see good use for the power failure project.

Good read.

I can't review the book, but received a nice email from David Leithauser (the author), in response to the review by another "John Harris" which complained about the sketches not compiling. He offered to help troubleshoot any compatibility issues with my IDE or Arduino model, to get me up and running.

Limited to specific sensors but it gives you the concepts and you can investigate the rest on your own.

Needs a serious edit for grammar and word usage. Sketches need testing as many of them do not work

There are lots of examples and ideas!! Written very well and is easy to follow. There are so many possibilities.

This provides a fun and inexpensive way to making your own smart home. Very informative and well written. Provides examples with multiple sensors.

[Download to continue reading...](#)

Remote Sensor Monitoring by Radio with Arduino: Detecting Intruders, Fires, Flammable and Toxic Gases, and Other Hazards at a Distance Building iPhone and iPad Electronic Projects: Real-World Arduino, Sensor, and Bluetooth Low Energy Apps in techBASIC Beginning Sensor Networks with Arduino and Raspberry Pi (Technology in Action) Building Wireless Sensor Networks: with ZigBee, XBee, Arduino, and Processing Health Monitoring of Aerospace Structures: Smart Sensor Technologies and Signal Processing Coal and Peat Fires: A Global Perspective: Volume 3: Case Studies – Coal Fires The Mathematical Theory of Non-uniform Gases: An Account of the Kinetic Theory of Viscosity, Thermal Conduction and Diffusion in Gases (Cambridge Mathematical Library) Natural Hazards: Earth's Processes as Hazards, Disasters, and Catastrophes Natural Hazards: Earth's Processes as Hazards, Disasters and Catastrophes (2nd Edition) Natural Hazards: Earth's Processes as Hazards, Disasters, and Catastrophes, Books a la Carte Edition Beginning C for Arduino, Second Edition: Learn C Programming for the Arduino Make: Sensors: A Hands-On Primer for Monitoring the Real World with Arduino and Raspberry Pi Environmental Monitoring with Arduino: Building Simple Devices to Collect Data About the World Around Us Atmospheric Monitoring with Arduino: Building Simple Devices to Collect Data About the Environment Fetal Heart Monitoring Principles and Practices 4th Edition (Awhonn, Fetal Heart Monitoring) Fetal Heart Monitoring: Principles and Practices (AWHONN, Fetal Heart Monitoring) Monitoring Technologies in Acute Care Environments: A Comprehensive Guide to Patient Monitoring Technology Everything is Flammable Remote Patient Monitoring in Cardiology Remote Drone Pilot Certification Study Guide: Your Key to Earning Part 107 Remote Pilot Certification

[Contact Us](#)

[DMCA](#)

Privacy

FAQ & Help