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Collana	Community experience distilled
Soggetti	Arduino (Programmable controller) Arduino (Programmable controller) - Programming
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Nota di contenuto	Cover ; Copyright; Credits; About the Author; About the Reviewers; www.PacktPub.com; Table of Contents; Preface; Chapter 1: Internet-Controlled PowerSwitch; Getting started; Hardware and software requirements; Arduino Ethernet Shield; The Arduino Ethernet board; Connecting Arduino Ethernet Shield to the Internet; Testing your Arduino Ethernet Shield; Selecting a PowerSwitch Tail; PN PSSRKT-240; PN80135; Wiring PowerSwitch Tail with Arduino Ethernet Shield; Turning PowerSwitch Tail into a simple web server; What is a web server?; A step-by-step process for building a web-based control panel Handling client requests by HTTP GETSensing the availability of mains electricity; Testing the mains electricity sensor; Building a user-friendly web user interface; Adding a Cascade Style Sheet to the web user interface; Finding the MAC address and obtaining a valid IP address; Finding the MAC address; Obtaining an IP address; Assigning a static IP address; Obtaining an IP address using DHCP; Summary; Chapter 2: Wi-Fi Signal Strength Reader and Haptic Feedback; Prerequisites; Arduino WiFi Shield; Firmware upgrading; Stacking the WiFi Shield with Arduino; Hacking an Arduino earlier than REV3 Knowing more about connectionsFixing the Arduino WiFi library; Connecting your Arduino to a Wi-Fi network; Wi-Fi signal strength and RSSI; Reading the Wi-Fi signal strength; Haptic feedback and haptic

motors; Getting started with the Adafruit DRV2605 haptic controller; Selecting a correct vibrator; Connecting a haptic controller to Arduino WiFi Shield; Soldering a vibrator to the haptic controller breakout board; Downloading the Adafruit DRV2605 library; Making vibration effects for RSSI; Implementing a simple web server; Reading the signal strength over Wi-Fi; Summary

Chapter 3: Internet-Connected Smart Water Meter Prerequisites; Water flow sensors; Wiring the water flow sensor with Arduino; Reading pulses; Rising edge and falling edge; Reading and counting pulses with Arduino; Calculating the water flow rate; Calculating the water flow volume; Adding an LCD screen to the water meter; Converting your water meter to a web server; A little bit about plumbing; Summary;

Chapter 4: Arduino Security Camera with Motion Detection; Prerequisites; Getting started with TTL Serial Camera; Wiring the TTL Serial Camera for image capturing

Wiring the TTL Serial Camera for video capturing Testing NTSC video stream with video screen; Connecting the TTL Serial Camera with Arduino and Ethernet Shield; Image capturing with Arduino; The Software Serial library; How the image capture works; Uploading images to Flickr; Creating a Flickr account; Creating a Temboo account; Creating your first Choreo; Initializing OAuth; Finalizing OAuth; Generating the photo upload sketch; Connecting the camera output with Temboo; Motion detection; Summary;

Chapter 5: Solar Panel Voltage Logging with NearBus Cloud Connector and Xively

Connecting a solar cell with the Arduino Ethernet board
