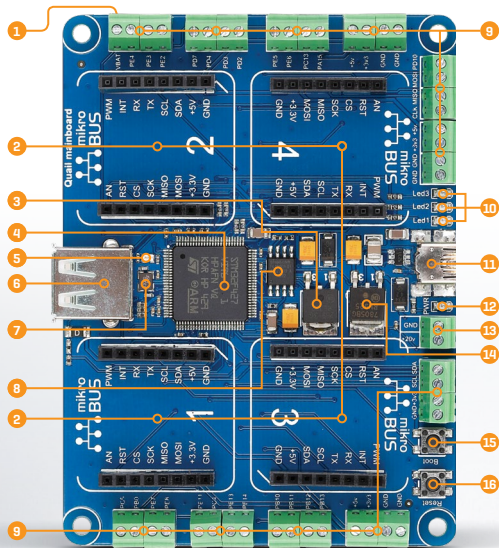# QUAIL

click™ boards meet .NET Micro framework

What's on board

1. RTC battery connector
2. mikroBUS™ sockets 1, 2, 3 and 4
3. 3.3V voltage regulator
4. 100pin STM32F427 MCU
5. 32.768 KHz crystal oscillator
6. USB A connector
7. 12 MHz crystal oscillator
8. Flash memory (64 Mbit)

9. Connecting terminals
10. Additional indication LEDs
11. USB Mini-B connector
12. Power indication LED
13. External power supply (+20V max)
14. 5V voltage regulator
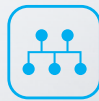15. BOOT button
16. RESET button

System specification

power supply	board dimensions	weight	mikroBUS™
via USB cable (5V DC)	72 x 97 mm (2.83 x 3.82 inch)	≈ 50g	4 sockets available

What is the Quail board?

Quail is a hardware development board equipped with four mikroBUS™ sockets and a 32-bit ARM® Cortex®-M4 STM32 microcontroller. The edges of the board are lined with screw terminals and USB ports for additional connectivity.

What's it for?

Quail offers a simplified way of developing hardware prototypes with C# managed code. It brings together MikroElektronika click™ boards and Microsoft's .NET Micro Framework for embedded devices [NETMF]. MikroElektronika is constantly expanding the range of click™ boards to include all sorts of sensors, tranceivers, displays… and the MikroBUS.NET team is supporting them with high-quality drivers to make them compatible with NETMF and the Microsoft Visual Studio IDE.

1. Install the required software

To start using Quail, download the following three pieces of software:

The Microsoft .NET Micro Framework
Open source platform that enables you to write managed C# code for embedded applications.
🌐 *www.netmf.com*

Visual Studio Community 2013
A full-featured free cross-platform IDE from Microsoft.
🌐 *www.visualstudio.com*

MBN Core Assembly
🌐 *www.mikrobusnet.org/downloads-2*

Visual Studio Community 2013

# 2. Get the click™ boards and corresponding drivers

Buzzer, Relays, WiFi, RFid, OLED, Speech recognition - **you name it, we got it!** There are more than a hundred click™ boards available. About 50 are supported so far with mikroBUS. NET drivers. More drivers are coming up all the time but if you're in a hurry instructions for building your own drivers are also available.

All available click™ boards:
🔗 *www.mikroe.com/click*

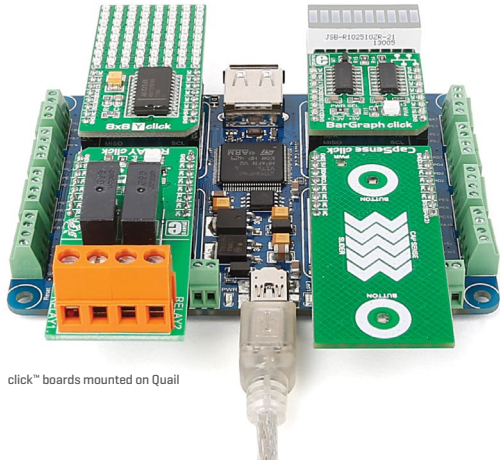MikroBUS.NET click™ board drivers:
🔗 *www.mikrobusnet.org/downloads-2*
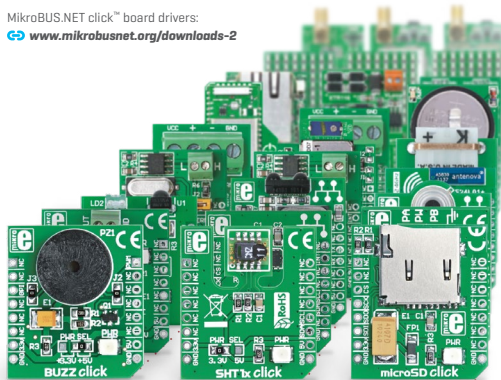
click™ add-on boards

3. Building your first application

After you're done setting up the development environment with steps 1 and 2, you are ready to start building your first application.

A detailed walkthrough on how to start a project in Visual Studio, include the neccessary drivers and reference the needed assembleys in your source code is available at:
🔗 *www.mikrobusnet.org/getting-started/writing-an-application*

click™ boards mounted on Quail