

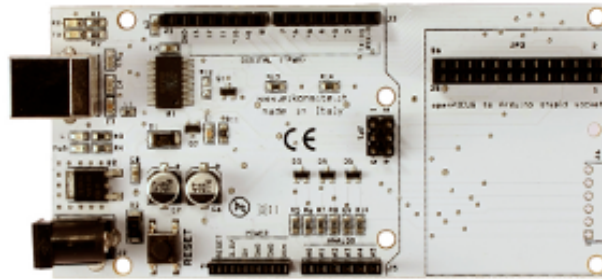
## ARDUINO SHIELD NEST

### Introduction

Arduino is based on Wiring open source standard that defined the concept of SHIELD. A Shield is a specific board with a standard pinout.

There are lot of Shields on the market and using our Arduino shield socket board you can use all of them with FLYPORT modules.

FLYPORT module is not included.



### Benefits

Use your Arduino shields  
Fastest way to prototype  
Fast development – using the free openPicus IDE  
Open Source

- Fast prototype your ideas using the wide range of Arduino shields
- No Arduino controller onboard, FLYPORT is the core of the system
- Compatible with openPicus Free IDE
- Easy development with openPicus free IDE
- USB to Serial FTDI chip for firmware download
- Serial bootloader onboard
- Webserver, email client, SNTP, SMTP, TPC/UDP socket
- USB or 7-15V power supply
- #14 Digital I/O
- #6 Analog Inputs
- #9 PWM
- 110x54 mm

### Application

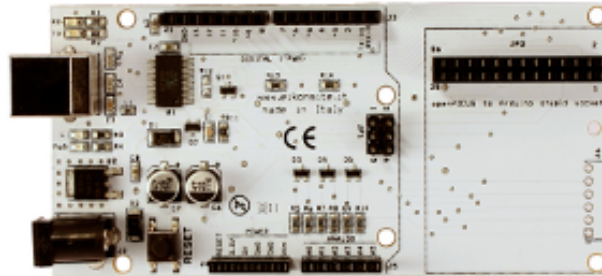
- WiFi Sensors
- Internet of Things
- WiFi Automation
- WiFi Entertainment

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openPICUS

## Overview

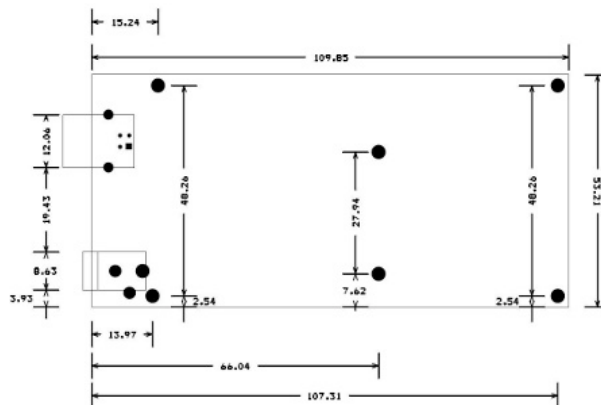


Digital Connectors (J3 and J1): pins with ~ symbol means those pins are also PWM.  
Analog inputs measure range 0-3.3V (max input voltage 5V)

The USB port can be used to power the system and to download the firmware to the openPICUS module (there's the serial bootloader on each module)

If you prefer to use Microchip programmer you can use the PGM connector J6

## Dimensions in mm



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## Power J4

Pin	Name	Arduino shield pin	Note
1	Reset	Input Signal Reset	
2	3.3V	3.3V output	
3	5V	5V output	
4	GND	Ground	
5	GND	Ground	
6	Vin	Power Supply	Range 7-15V DC

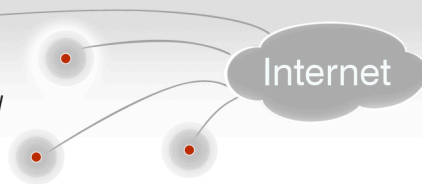
## Analog J5

Pin	Name	Arduino shield pin	Connected to Flyport pin
1	A0	Analog input (0-3.3V measure) max 5V	Pin 23
2	A1	Analog input (0-3.3V measure) max 5V	Pin 25
3	A2	Analog input (0-3.3V measure) max 5V	Pin 18
4	A3	Analog input (0-3.3V measure) max 5V	Pin 20
5	A4	Analog input (0-3.3V measure) max 5V	Pin 19
6	A5	Analog input (0-3.3V measure) max 5V	Pin 21

## Digital (~PWM) J3

Pin	Name	Arduino shield pin	Connected to Flyport pin
1	RX<-1	D0 / UART RX INPUT	Pin 13
2	TX-<1	D1/UART RX INPUT	Pin 15
3	2	D2	Pin 10
4	3	D3	Pin 12
5	4	D4	Pin 14
6	~5	D5	Pin 5
7	~6	D6	Pin 9
8	7	D7	Pin 11
9	8	D8	Pin 7
10	~9	D9	Pin 4
11	~10	D10	Pin 6
12	11	D11	Pin 17
13	12	D12	Pin 2
14	12	D13	Pin 8
15	GND	Ground	-
16	NC	Not connected	-

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## Applications Development

You need only a PC (windows) with a USB port for power supply and firmware download. You don't need any expansive programming tool: on Flyport modules is loaded a Serial bootloader.

**NOTE:** Libraries or code for Arduino Shields may be not available. Please check on [www.openpicus.com](http://www.openpicus.com) website or get ready to make library porting from Arduino platform to openPicus standard.

Schematic of this board is available on our website.

## Ordering informations

Buy online from our store or through our resellers and distributors.

**Code 015370** ARDUINO SHIELD NEST

No cables or power supply are included. Only the board

**NOTE:** the product is not provided with any openPICUS module, please buy modules separately.

## How to start development

Visit our website [www.openpicus.com](http://www.openpicus.com) to download the IDE, a getting started guide and application notes, examples and libraries.

The **suggested starter kit** is composed by:

- miniUSB PROGRAMMER (to download firmware)
  - ARDUINO SHIELD NEST
  - FLYPORT Wi-Fi module
- OR
- FLYPORT Ethernet module

Code 015371

Code 015370

Code 015350 or Code 015353

Code.015356 or Code.015357

Each FLYPORT Module has a serial bootloader onboard.