FEZ Domino Board

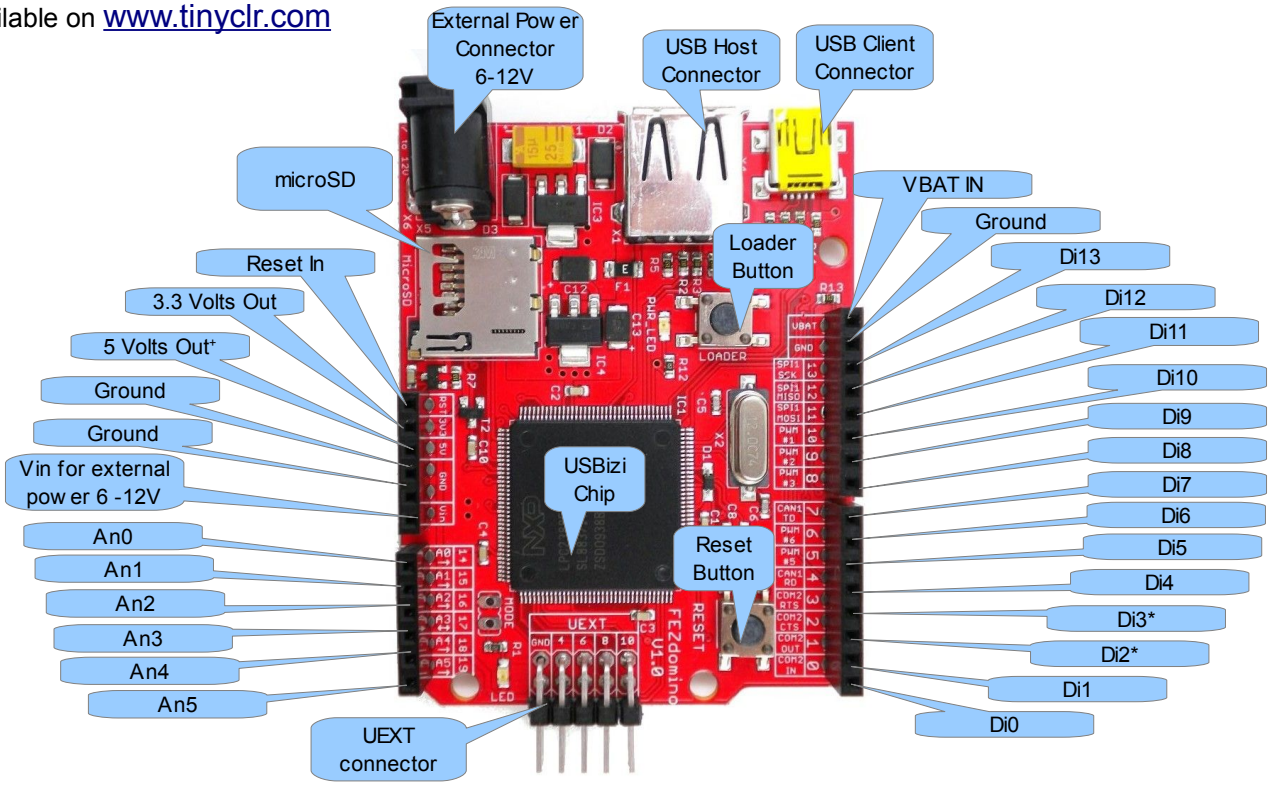
FEZ Domino is a tiny board running Microsoft .NET Micro Framework. This means, you can write code with much more efficiency using C# programming language under free Microsoft Visual C# express with the great support for runtime debugging (breakpoints, variable inspection, stepping, etc.)

You can see how FEZ Domino outline looks very similar to Arduino Duemilanove. The reason for this compatibility is the many shields available for Arduino board. TinyCLR.com offers several shields (Ethernet, Display, Motor Driver ...etc.) that are fully tested and supported with FEZ Domino.

Furthermore, with **FEZ Domino Expansion shield** and on-board **UEXT header** , the user can easily use Olimex UEXT modules and the many available components making FEZ Domino the simplest but yet the most flexible and easiest device in the embedded market. Developers, professionals and hobbyists, have the option of creating many designs by simple-plug-in components.

Many libraries are already included like USB host, FAT file system, threading, UART, SPI, I2C, GPIO, PWM, ADC, DAC, CAN and many more.

To get started with FEZ please take a look at FEZ Tutorial and .NET Micro Micro Framework Beginners Guide available on www.tinyclr.com

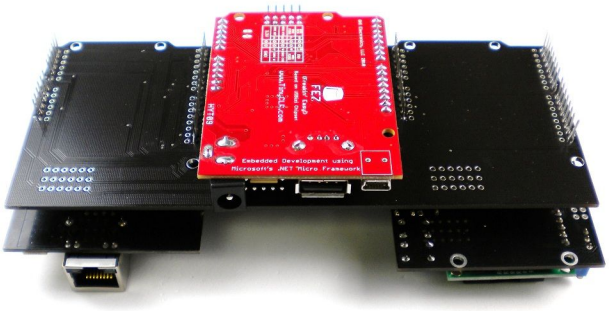


* An4 and An5 are open drain pins with 2.2K pull up resistors.
\+ Available only with external power (not USB powered).

Stackable Shields:
Boards that install directly on top of FEZ Domino are called shields. The pinout is compatible with Arduino allowing developers to use most of the many available Arduino shields.

Although shields plug in directly to the all the pin headers, not all signals are actually used; therefore, multiple shields maybe used. The multiple shields can be stacked up, like LCD shield and Ethernet shield.

For shields that can't be stacked up, an extender shield can be used instead. Extender shields are available from www.liquidware.com.



To use multiple shields then we need to make sure they are not using the same pin. This can be accomplished by looking at the schematics of each shield. A simpler option is to create a project and include the driver files of all shields. If the shields are using the same pins then an exception will be raised signaling an error.

FEZ Domino Pins Features:

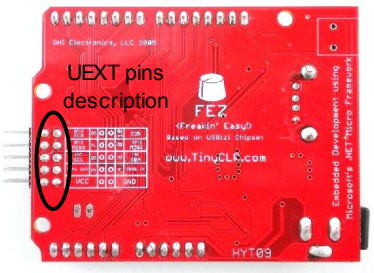
All pins on the 0.1" female headers and UEXT can be used as digital input/output. Some pins have secondary features. Do not attempt to use a pin as digital and as secondary feature simultaneously. For example, when using Di5 as PWM, you can not use Di5 as a digital I/O till you release the PWM feature (in code).

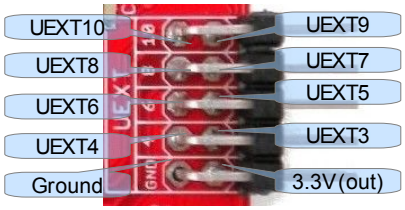
Pin	Secondary Features	Pin	Secondary Features
An0*	Analog Input	Di0*	COM1 IN
An1*	Analog Input	Di1*	COM1 OUT
An2*	Analog Input	Di2*	(Open Drain Pin) I2C SDA
An3*	Analog Input/ Analog Output	Di3	(Open Drain Pin) I2C SCL
An4	Analog Input	Di4*	CAN Channel 1 IN
An5	Analog Input	Di5	PWM
Di11*	SPI1 MOSI	Di6	PWM
Di12*	SPI1 MISO	Di7*	CAN Channel 1 OUT
Di13*	SPI1 SCK	Di8*	PWM
LED	Controls on-board LED/PWM	Di9*	PWM
Loader	on-board button	Di10*	PWM

* These pins can work as interrupt inputs

UEXT Connector:

UEXT connector is made to be compatible with Olimex modules (extensions) such as MP3 decoder, GPS or 3-axis accelerometer extensions. many extensions are already available on www.tinyclr.com





Pin	Secondary Features	Pin	Secondary Features
UEXT10*	None	UEXT9*	SPI2 SCK
UEXT8*	SPI2 MOSI	UEXT7*	SPI2 MISO
UEXT6*	COM2 CTS	UEXT5*	COM2 RTS
UEXT4*	COM2 RX(IN)	UEXT3*	COM2 TX(OUT)

* These pins can work as interrupt inputs

USB Host Connector:

Not to mention the USB host feature that allows FEZ Domino to access almost any USB device. Read a mouse, keyboard or joystick? Read/Write files from your thumb drive? or even control your printer? No problem! FEZ Domino can do it! Also the user can read/write files on microSD cards directly with FEZ Domino with on-board microSD socket and FAT file system library.