PIC32 microcontroller based Projects List

1. **pickit 3 supported devices**
   Supported Devices Refer to MPLAB IDE v8.76, the following devices are supported: ICSP PIC10F PIC10F200, PIC10F202, PIC10F204, PIC10F206, PIC10F220, PIC10F222 PIC12F PIC12F508, PIC12F509, PIC12F510, PIC12F519, PIC12F609, PIC12HV609, PIC12F615, PIC12FHV615PIC12F629, PIC12F635, ...

2. **PICKIT 3 MINI**
   Previously, I made a Pickit 3 clone - (See previous Blog Post). It works well, but I have often wondered just how little of its circuitry was needed to program...

3. **Microchip Introduces New PIC32 Bluetooth® Starter Kit**
   CHANDLER, Ariz., Aug. 6, 2014 [NASDAQ: MCHP] – Microchip Technology Inc., a leading provider of microcontroller, mixed-signal, analog and Flash-IP solutions, today announced the new PIC32 Bluetooth® Starter Kit. The...

4. **New Microchip PIC32 Microcontrollers Run at 72MHz**
   CHANDLER, Ariz., Nov. 5, 2007 – Microchip Technology today announced the new Microchip PIC32 family of MIPS 32-bit microcontrollers (MCUs). The Microchip PIC32 is based upon the MIPS32 M4K Core...

5. **NU32: Introduction to the PIC32 using pic-microcontroller**
   The Microchip PIC32 is a family of complex and powerful microcontrollers that can be purchased for less than $10 in quantities of one. This microcontroller offers many peripherals useful for...

6. **PIC32MM Family of Low Power, Low Cost, 32-bit Microcontrollers**
   For applications demanding low power and longer battery life, the PIC32MM has sleep modes down to 500 nA. Applications with space constraints will benefit from
7. **Uploading Firmware to Your ChipKIT Boards**

There may come a time in your chipKIT explorations when you have to put some new firmware onto your board. Well, fear not. This Instructable will go through how to...

8. **Addressable LEDs (WS2812) on ChipKIT**

There has not been a simple addressable LED library for PIC32 microcontrollers until now! The PICxel library is an MPIDE library that handles the timing required to use addressable LEDs...

9. **How to Install ChipKIT Core**

For those of you with a chipKIT board, I have good news! If you like using the Arduino IDE instead of MPIDE, your dreams have become a reality with chipKIT-core...

10. **Ultrasonic Obstacle-avoiding Robot**

This is my attempt at designing and building an obstacle avoiding robot! RekaBot (named after a fairy :) can detect obstacles with an ultrasonic sensor that can move around...

11. **Starting a Project in MPLAB X for ChipKIT Products**

This tutorial comes right after my Installing MPLAB X tutorial, so if you haven’t installed MPLAB X and the XC32 compiler, check that one out first. In Arduino, programming a...

12. **PIC32 Multimedia Expansion Board Review Video**

Review of the Multimedia Expansion Board for the PIC32 Start Kits from Microchip. In this review I’m going to show the board and it’s peripherals, and then I will show...

13. **Imagination lets MIPS take academic plunge**

Imagination Technologies’ decision to reveal the inner-most secrets of the MIPS microprocessor architecture to academics could dramatically improve the teaching of electronics in universities. The MIPS architecture started off as...
14. **Imagination opens MIPS to worldwide universities**

Imagination is offering universities worldwide free and open access to its MIPS architecture as part of the Imagination University Programme (IUP) called MIPSfpga. Through MIPSfpga, Imagination is offering access to...

15. **$15.00 BASIC Computer using PIC32MX1 microcontroller**

$15.00 BASIC Computer? Imagine a microcontroller that you can connect a serial terminal up to to get an ok prompt? What would happen if you changed one of the control...

16. **Execute Open-Source Code in a PIC Microcontroller Using the MPLAB IDE**

The PIC32 single-board computer is a de facto standard tool for developing microcomputer applications within the hobbyist and educational communities. It provides an open-source hardware (OSH) environment based on a...

17. **j. ICSP Programmer for PIC32 microcontroller family**

PIC32 ICSP Programmer v1.0 is based on a simple PIC32MX270F256B microcontroller basic circuit. It connects to a PC via USB 2.0 port and therefore needs no external power supply. It...

18. **Bluetooth-Controlled Guitar FX Amplifier**

As part of our final project for ECE 4760: Digital Systems Design Using Microcontrollers, we built a guitar amplifier with remote distortion and digital effects capabilities controlled from a smartphone...

19. **Open Source 3.2” TFT Smart Display**

This project is an open source 3.2” Smart TFT display board. The board is based on a PIC32 and a 3.2’’TFT with touchscreen (ILI9320 controller, using 16bits PMP). The...

20. **Rev 4.2.2 schematic and PCB**

A long while back I posted a version of the schematic for the electronics for my project to build a GPS-steered parachute for rocket recovery. Since then I’ve tweaked the...

21. **Mork Microchip PIC32MX ICSP**

Mork is adaptation of Nanu nanu Microchip PIC ICSP for the STM32 based vcc-gnd or Maple mini. Both STM32 boards are inexpensive boards which don’t cost much more than the...
22. PIC32 Bluetooth Starter Kit; DM320018

The DM320018 PIC32 bluetooth starter kit comes with demonstration code that allows it to communicate with smart devices that are bluetooth enabled. It features the PIC32MX270F256D MCU for central processing.

23. Introduction to the PIC32 using pic-microcontroller

The Microchip PIC32 is a family of complex and powerful microcontrollers that can be purchased for less than $10 in quantities of one. This microcontroller offers many peripherals useful for...

24. Augustus's Lab Notebook using pic microcontroller

Week 01 January 10, 2012 (1 hour): Met as a team after class to discuss preliminary project proposal. January 12, 2012 (2 hours): Met as a team after class to...

25. One PIC Microcontroller Platform Development Board

One PIC Microcontroller Platform Development Board Develop firmware using Microchip's 8/16/32-bit PIC® Microcontrollers all on one board! Each device comes preprogrammed with firmware to operate the LCD, LED and...

26. Self-made development board for the 32-bit PIC32MX220F032B Microcontroller

Few months ago Microchip introduced smallest, lowest-cost PIC32 microcontrollers – new PIC32“MX1” and PIC32“MX2” families. PIC32 MX1 and MX2 MCUs include up to 32 KB of Flash and 8 KB...

27. El Cheapo, the cheap way to program a PIC microcontroller

If you ever wanted to do a project involving microcontrollers, the first thing you need is a microcontroller, and programmer. Many commercial PIC programmers exist. These programmers cost anywhere from...

28. The chipKIT™ UNO32™ and MAX32™ development boards for the Arduino™ Community

Microchip Technology Inc., a leading provider of microcontroller, analog and Flash-IP solutions, and Digilent, Inc. announced expanded capabilities for the
32-bit PIC32 microcontroller-based chipKIT™ Development Platform for the Arduino™ community...

29. PIC32MX: Interfacing to a Secure Digital (SD) Flash Card

Original Assignment Do not erase this section! Your assignment is to create code that will allow the PIC32 to read and write data to a FAT32 SD card. The SD...

30. Andy Robison’s Lab Notebook using pic microcontroller

Week 01 January 14 (2 hours): Met as a team after class to discuss preliminary project proposal. January 15, 2010 (1 hours): Met as a team to discuss design implementation...

31. Microchip announced MPLAB® Harmony Graphics Composer GUI Tool

Microchip Announces Graphical User Interface Composer Tool for MPLAB® Harmony
MPLAB Harmony Graphics Composer Allows Engineers to Easily Develop and Design Professional-Looking Graphical User Interfaces
CHANDLER, Ariz., June 1, 2016...

32. chipKIT Tutorial 2: Serial communication with PC

The PIC32 processor on the chipKIT Uno32 board provides two hardware serial ports. One of these is used by the on-board FTDI chip to create an USB-UART interface that allows...

33. What is Chipkit Development Board?

In order to understand the chipKIT platform, it is important to talk about Arduino first. Arduino is an easy-to-use and powerful open source environment for developing microcontroller based applications. Chipkit Development...

34. chipKIT Tutorial 3: Analog-to-digital conversion

[caption id="attachment_12035" align="alignnone" width="570"]
Analog-to-digital conversion[/caption]
Theory Many embedded applications deal with physical variables such as motion, temperature, pressure, relative humidity, light intensity, and sound. A microcontroller cannot directly...

35. 3D TouchPad from Microchip

Microchip Technology have announced a computer peripheral 6” touchpad which it claims is the first able to resolve 2D multi-touch and free-space 3D gestures. To detect gestures up to a...
36. **Top PIC Microcontroller Projects with Embedded C Programming**

Peripheral Interface controller (PIC) family is one of the most powerful advanced microcontroller which is developed by the microchip technology with Harvard architecture, i.e., it has a minimum set of...

37. **Audio spectrum analyzer on PIC32 using pic microcontroller**

This simple audio spectrum analyzer is based on PIC32 proto board on PIC32MX360F512L with 320×240px colour LCD (LVC75Z779 Eval Board). The analyzer can be connected to unamplified audio source like...

38. **Usbpicprog – A free and open source USB Microchip PIC programmer (Software and Hardware) for Linux, Windows e MAC**

Usbpicprog is an USB in circuit programmer for Microchip PIC processors family PIC10F, PIC12F, PIC16F, PIC18F, PIC24F, PIC32F and I2C Eeprom 24xx. The hardware is as simple as possible, the...

39. **Pickit 2 Download & Develop Your own USB pickit ii programmer**

PICkit 2 Introduction: There are many PIC programmer available, commercial and DIY devices. As Microchip introduces the new microprocessors the programming software got to be updated accordingly playing catch-up...

40. **Download MPLAB IDE**

What is MPLAB IDE? MPLAB is an Integrated Development Environment (IDE) which is a free, integrated toolset for the development of embedded applications employing Microchip's PIC® and dsPIC® microcontrollers. MPLAB IDE...