

# SchmartBoard 2010 MCU Challenge

We recommend that you print this for your reference.

## Overview

The 2010 Schmartboard MCU Challenge is effectively 3 contests in one. We have separate challenges for creating circuits using the SchmartBoard 710-0004-01 board for the Microchip 8 Bit PIC MCU, 710-0005-01 for Parallax Propeller and 710-0006-01 for Texas Instruments MSP430, Piccolo and Stellaris Cortex M3. Entrants can enter 1 or more segment and/or multiple times for each segment. One needs to acquire a project number for each separate entry. **It is imperative that you follow the instructions below.**

## Eligibility

Applicants should be at least 18 years old. If you are under 18 you will need to have your legal guardian fill out this consent form. Please note that if you wish to participate in this contest you need to take responsibility for your own involvement. SchmartBoard, Inc. reserves the right to pull any application at any time for any reason. Employees of SchmartBoard, Inc. are not eligible to enter the contest, neither are sponsors of the event. International applicants are encouraged to submit their projects. SchmartBoard, Inc. disclaims any responsibility associated with your country's rules or conditions pertaining to entering contests, should they apply. If you are a winner in the contest, you will be responsible for shipping charges and import taxes should they apply.

## Project Number Acquisition

- Email to [MCUChallenge@schmartboard.com](mailto:MCUChallenge@schmartboard.com) - Name, address, phone number and e-mail contact information.
- Brief description of the project you plan on submitting.
- Statement concurring that you agree to completely abide by the SchmartBoard MCU Challenge Project Submittal Rules.

The issuance of a Project Number represents a commitment on your behalf to submit a project in the contest. Project Numbers will be issued until **November 30<sup>th</sup> 2010** at which time we will consider the contest closed to new entries.

## Submission Guidelines

All project submittals must be made by e-mail only and on the forum by **December 31st, 2010 at 5:00 pm PST**. No hard copies will be accepted. Specifically, this is what we require for submitting a project:

- **Project Report:** in MS Word format (PDF for the forum version) with the following sub-headings: Project Number, Project Description, Schematic, Block Diagram (if applicable), Source Code, Bill of Materials and Pictures. PDF is an acceptable substitute if the applicant is able to provide the original graphic files upon request so they may be posted on our web site. All documentation must be provided in clear English language. The project description should be one page or less. This would be the first attachment in the e-mail message.
- **Source Code:** Well-formatted and documented code is required so the judges may develop a reasonable understanding of the functionality. This would be your second attachment in the e-mail message, zipped up if you have more than one file.
- **Pictures:** Submit at least three different digital photographs of your project, electronics and project in use. Submit at least one photograph of the project designer holding the project. Provide the photos in high-resolution format; SchmartBoard, Inc. will make any lower-resolution photos for web or print use. MPEG or WMF-formatted videos may also be submitted if the project involves motion. All pictures and videos would be your third attachment to the e-mail, zipped up into a single file.
- **Videos:** Videos and/or a working prototype are highly suggested but optional. (Link to YouTube)
- **SchmartBoard forum:** In addition to sending us this information to [MCUChallenge@schmartboard.com](mailto:MCUChallenge@schmartboard.com), you are to post it on the SchmartBoard forum <http://forum.schmartboard.com> under the MCU Challenge section under the correct challenge segment (Parallax, Microchip, Texas Instruments), with your circuit name as the topic heading. All of the same information should be posted. Forum readers are responsible for 25% of the judging and this is where they will review the information. If it is not posted or incomplete, you will lose 25% of your eligibility. You may post your project on the forum anytime before the deadline of January 31<sup>st</sup> 2010 and may utilize the forum for advice or input from other forum users.

Great examples of what we are looking for can be found on the Parallax website:  
<http://www.parallax.com/Resources/ApplicationsContests/Contests/200910PropellerContest/tabid/846/Default.aspx>

Multiple e-mail messages may be submitted if file sizes are a problem. The judges may request the submittal of the physical project you designed. Judges may also request clarification of specific project details.

## Circuit Originality

The entrant warrants that their designs:

- (1) are original and owned exclusively by them;
- (2) that the entrant is not bound by any IP agreements or similar obligations with another party.

## The Judges

The following judges will assess the submittals:

- **MCU Company (Parallax, Microchip or Texas Instruments)- 50%**
- **Nuts and Volts/Servo Magazine - 25%**
- **Readers of SchmartBoard's Forum - 25%**
- **SchmartBoard - Tie Breaker**

## Judging Criteria

Projects will be judged according to the following skill factors and not randomly:

- 25% Documentation
- 30% Design Appropriateness: Determined on applicant's ability to use SchmartBoard products to achieve a working design.
- 30% Originality: Creativity of the project design.
- 15% Practicality: Based on the project's Usefulness, Complexity of parts, and Versatility of overall design that make it desirable.

## Legal Considerations

Design submittals will remain the intellectual property of the applicants. Due to the open-project nature of the contest, applicants with submittals of particular commercial value should consider obtaining copyrights or patents. Applicants may copyright their submittals simply by putting a copyright [ © ] with the author's name and date within the code to provide some form of protection. All applicants grant SchmartBoard, Inc. and any co-sponsors (listed below) non-exclusive web and print publication rights, whether they are selected as a winner or non-winning entrant. SchmartBoard, Inc. will post all contest projects in entirety on our web site. Selected applications may also be published in print advertising, images, or in our catalogs or books. By entering, applicants agree to release and hold harmless SchmartBoard, Inc and any associates or co-sponsors (Microchip, Parallax, Texas Instruments, Elenco, Jameco Electronics, Robot Shop, T&L Publications) from any and all liability.

## Prizes

Winners will be notified by **January 30th, 2011**. Projects will be posted on the SchmartBoard, Inc. website by the end of **February**. Winners will receive the following:

### Microchip PIC MCU Segment

- First Prize – Apple iPad-16GB, WiFi
- Second Prize – Cue Radio Model r1
- Third Prize MPLAB ICD3 In-Circuit Debugger
- Honorable Mention 1 MPLAB Starter Kit for PIC18F MCU
- (4) Honorable Mention 2 \$50 Coupon at Jameco Electronics or Robot Shop

### Parallax Propeller MCU Segment

- First Prize – Apple iPad-16GB, WiFi
- Second Prize – Parallax Stingray Robot Kit
- Third Prize – Parallax PropScope – USB Oscilloscope
- (2) Honorable Mention 1 Elenco Snap Circuit Deluxe Kit
- (2) Honorable Mention 2 \$50 Coupon at Jameco Electronics or Robot Shop

### Texas Instruments MCU Segment

- First Prize – Apple iPad-16GB, WiFi
- (3) Second Prizes - eZ430 Chronos Sports Watch Dev Kit
- (3) Third Prizes - Programming tool for the MCU product of your choice
- (2) Honorable Mention 1 First Choice of \$50 Coupon at Jameco Electronics or Robot Shop
- (2) Honorable Mention 2 \$50 Coupon at Jameco Electronics or Robot Shop

## Co-sponsors

**Media Sponsor** – Nuts and Volts Magazine, Servo Magazine

### Corporate Sponsors

- Microchip
- Parallax
- Texas Instruments
- Elenco
- Jameco Electronics
- Robot Shop

## Contact

If you are unsure about something, please contact us at: [MCUChallenge@schmartboard.com](mailto:MCUChallenge@schmartboard.com)

We are here to answer any questions. Reference your project number in the e-mail.