



The Riverside Robotics Society

Jan 16 2016
Meeting Recap

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Join our mailing list at:
<http://www.meetup.com/The-Riverside-Robotics-Society/>

Affiliated Chapter

RRS is affiliated with the Robotics Society of Southern California. They meet at Cal State Long Beach:
<http://www.rssc.org/>

Thank Your Sponsors!

The following companies help support Riverside Robotics Society.

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Nuts & Volts Magazine
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<http://www.robotis.us/>

Servo Magazine
<http://www.servomagazine.com/>

Other Events

<http://larobotics.org/>
<http://www.robotevents.com/>

Dear RRS Members,

The January meeting was a great way to start the new year!

If you missed it, well you missed quite a lot. Let me show you in pictures.







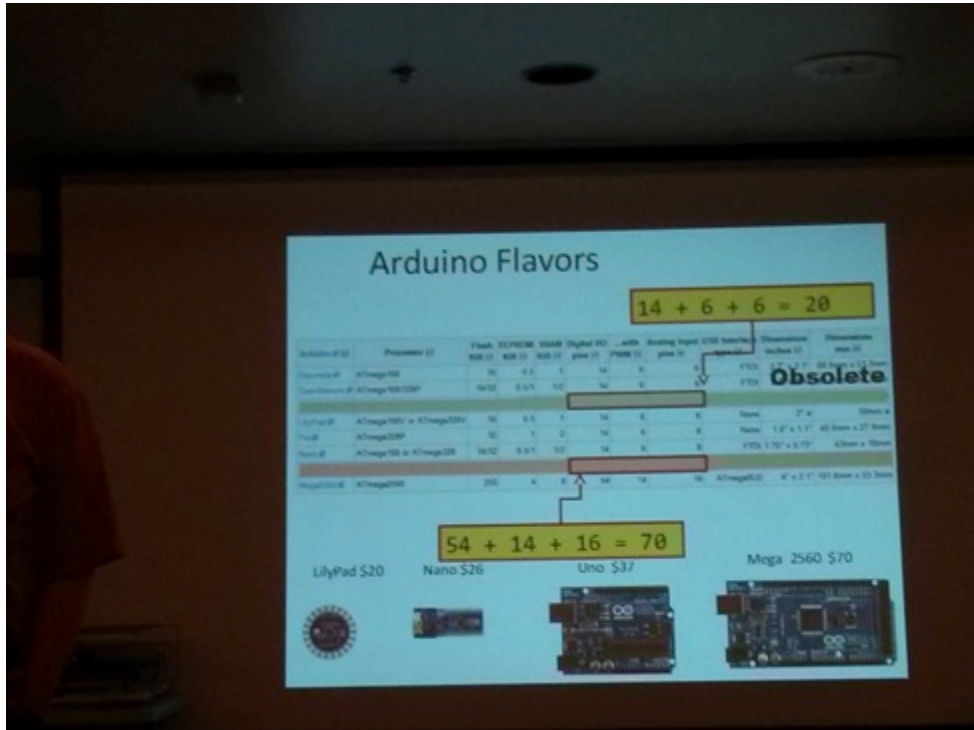
And then R2D2 shows up....



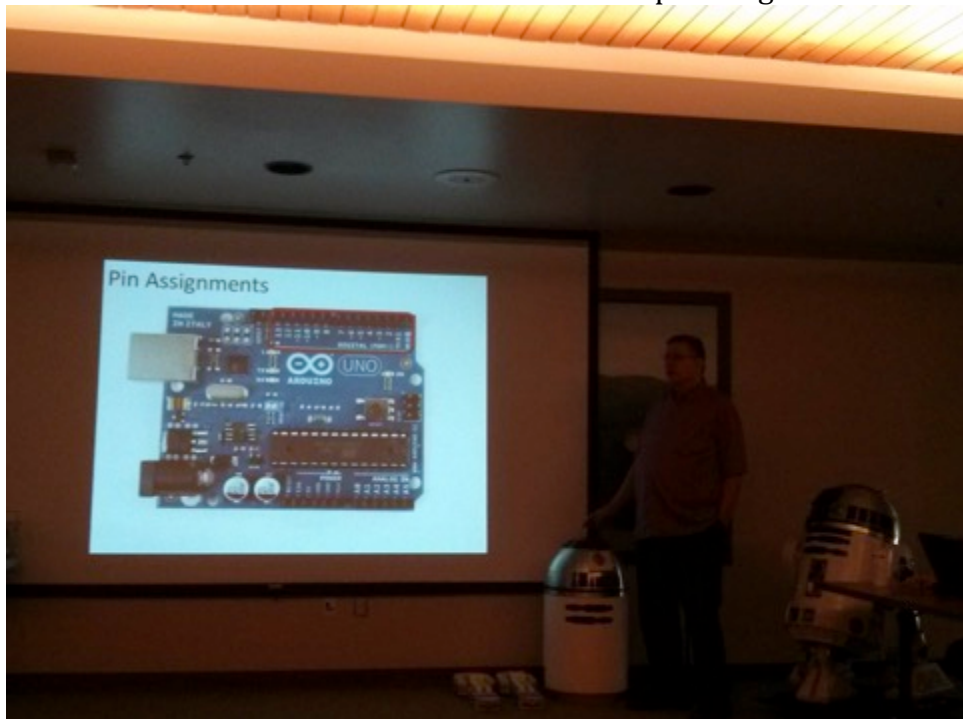
And then we began our lecture....

Professor Vannoy then began our 3-part monthly series on microcontrollers, programming and sensor strategy using the Arduino Uno as the microcontroller.

First we learned the history of Arduino and the various models.



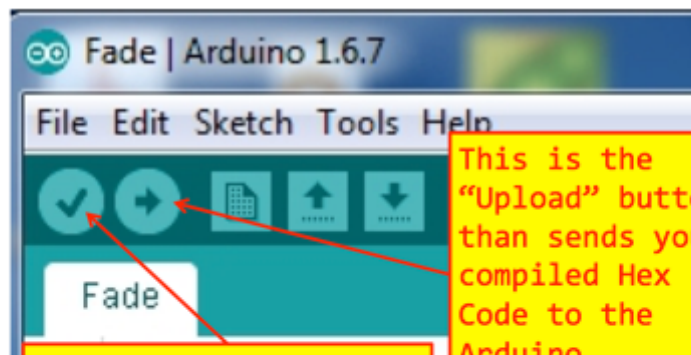
Proceeded to the Arduino UNO and learned the pin assignments.



Yep, it was a full house; two rows deep on both sides of the room!



Professor Vannoy concluded the lecture by spending time walking us thru the Arduino IDE (aka Integrated Development Environment). The IDE is the place you program the Arduino. Arduino calls each program a sketch, not a program.



This is the "Verify" button that converts your source code into Hex code for loading on the Arduino.
Control-R

This is the "Upload" button than sends your compiled Hex Code to the Arduino.
Control-U

Professor Vannoy concluded the lecture with the ever-popular blink sketch.

```
#define LED_PIN 13  
void setup() {  
  pinMode(LED_PIN, OUTPUT);  
}  
void loop() {
```

Blink LED Sketch

The setup() function is required in every sketch. Use it for setting up initial values and things you want done before the main program starts

Download the files

Ahead of Professor Vannoy's lecture, he passed around a jump drive of the presentation for today as well as homework and reading material.

Flyer for Jan 2016 >

<http://files.meetup.com/1352731/Flyer%20for%20January%202016.pptx>

Arduino Uno Introduction PPT >

<http://files.meetup.com/1352731/Arduino%20Uno%20Introduction.pptx>

Arduino Programming Notebook, Evans 2009 PDF >

<http://files.meetup.com/1352731/Free%20Training%20Opportunities%20for%20the%20Riverside%20Robotics%20Society.docx>

Introduction to Arduino - A Piece of Cake, Smith 2011 PDF >

http://files.meetup.com/1352731/Introduction%20to%20Arduino_%20A%20Piece%20of%20Cake%21%2C%20Smith%282011%29.pdf (copy & paste link)

January 2016 Instructions & Homework >

<http://files.meetup.com/1352731/January%202016%20Instructions%20%26%20Homework.docx>

LED Blink Screenshot >

<http://files.meetup.com/1352731/LED%20Blink%20screenshot.jpg>

Arduino IDE >

<https://www.arduino.cc/en/Main/Software>

If this wasn't tremendous enough, he included additional *free training* >

<http://files.meetup.com/1352731/Free%20Training%20Opportunities%20for%20the%20Riverside%20Robotics%20Society.docx>

We concluded the meeting with some Show & Tell.

Robbie shared his R2D2 inspired monitor that he painted.

Steve shared a new project that involves a robot tricycle. I did not take a picture, as I was not sure if it OK.

Steve also talked about a product called the Particle Photon that is available from SparkFun. It is designed for internet of things development projects.

<https://www.sparkfun.com/products/13764>

And finally Tim showed off a really cool project that he is working on. It involves gestures for an Ouija board. It was pretty cool in that it spells out specific words. It will ultimately be installed in a building in Hollywood.



Upcoming Events

If you don't have an Arduino Uno, now is the time to buy and start playing around with the IDE. It is about \$25 at SparkFun.

<https://www.sparkfun.com/products/11021>.

The year is new. Now is the time to learn something new, so take advantage of this opportunity, as it is free! Later this year we will use this knowledge for our Line Following and Sumo Bot contests.

In Feb the lecture will be Programming the Arduino Uno. In March we will learn sensor strategies for Line Following & Sumo Bots.

March Meeting

In March we will also have a presentation from Hansol Hong, CEO of RoboLink: <http://roboLink.com/>. RoboLink operates two learning centers and teaches 15 after schools programs to elementary and middle schools in San Diego.

Last year I helped fund a RoboLink Robot Kit on Kickstarter. It teaches building and programming using Arduino without soldering.

<https://www.kickstarter.com/projects/728836843/rokit-smart-build-and-program-robots-the-easy-way>

Recently RoboLink announced a new kickstarter project for a quadcopter that provides step-by-step videos to learn the coding using an Arduino compatible board.



<https://www.kickstarter.com/projects/728836843/codrone-learn-to-code-with-programmable-drone/comments>

Are You Interested in Robotics? If so, Become a Paid Member

Whether you are a newbie or an expert, the Riverside Robotics Society is a great club to belong to. We love to share our experiences and technical knowledge. If we don't know something, chances are we can point you in the right direction to secure the answer you need.

The Riverside Robotics Society is open to hobbyists and makers of all ages. If you are age 15 and younger, a parent must accompany you to all meetings. While we don't curse, this is for your personal safety. We often use things such as soldering irons and we cannot always protect you from equipment.

Our meetings are held at Woodcrest Library in Riverside, California and are open to the public. We generally meet on the 3rd Saturday of the month, albeit exceptions occur 😊.

Paid Membership is \$20 per person and \$30 for families per year. This allows you free entry to our all contests including robot of the month club. When you participate in a contest, we give prizes that are commensurate with the contest value. These include prizes like t-shirts, magazine subscriptions, robot parts and electronic equipment.

Paid members also receive free training lectures when offered by the chapter and access to special events that are not available to the general public.

Register at <http://www.meetup.com/The-Riverside-Robotics-Society/> to receive our email communications.

Attend an open meeting. If you like what you see, give \$20 or 30 to our treasurer and become a member. Yep, it is that easy.