



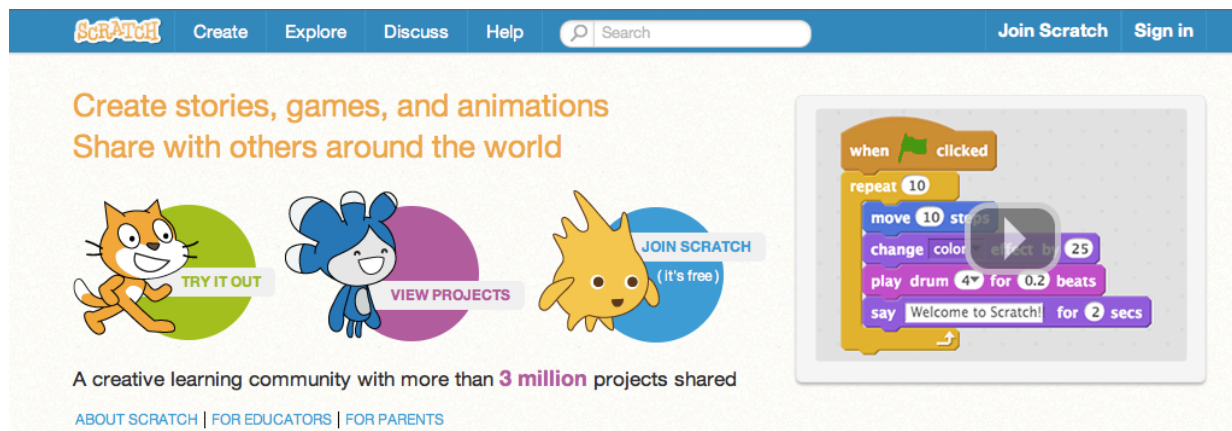
How to Run a Scratch Competition

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[http://coweb.cc.gatech.edu/
ice-gt/1489](http://coweb.cc.gatech.edu/ice-gt/1489)

What is Scratch?

- Free software from MIT – scratch.mit.edu
- Designed for – elementary to college aged
 - Low floor – easy to get started
 - High ceiling – lots you can learn and do
 - Wide walls – many different types of projects



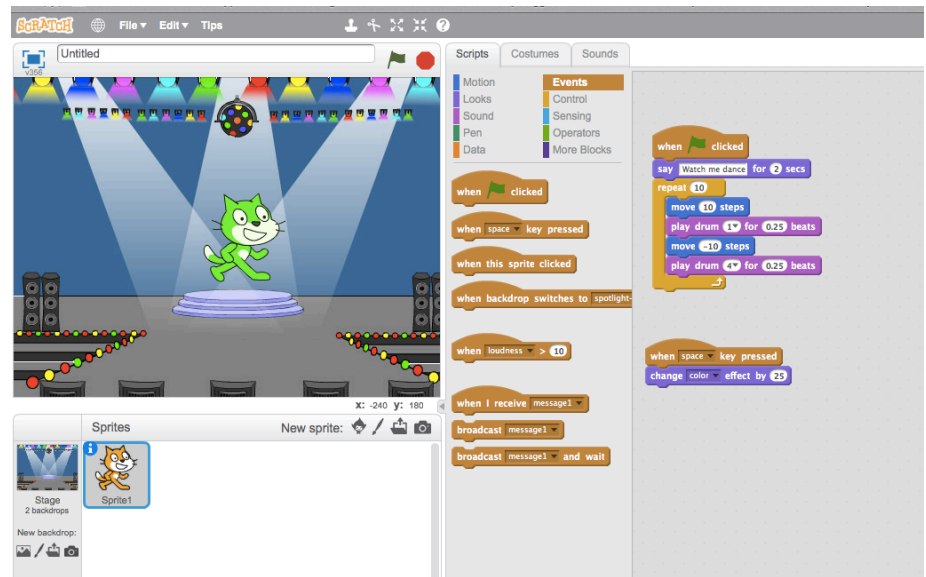
The screenshot shows the Scratch website homepage. At the top is a blue navigation bar with the Scratch logo, links for 'Create', 'Explore', 'Discuss', 'Help', a search bar, and 'Join Scratch' and 'Sign in' buttons. Below the navigation bar, the main content area features the text 'Create stories, games, and animations' and 'Share with others around the world'. There are three circular icons: a cat icon with 'TRY IT OUT', a blue character icon with 'VIEW PROJECTS', and a yellow character icon with 'JOIN SCRATCH (It's free)'. To the right is a preview of a Scratch script: 'when green flag clicked', 'repeat 10', 'move 10 steps', 'change color of effect by 25', 'play drum 4 for 0.2 beats', and 'say Welcome to Scratch! for 2 secs'. At the bottom, it says 'A creative learning community with more than 3 million projects shared' and has links for 'ABOUT SCRATCH | FOR EDUCATORS | FOR PARENTS'.

Versions of Scratch

- 1.4 – installed to your local machine
 - Runs on any type of computer
- 2.0 – current version runs in a browser and is Flash based
 - Won't run on iPads
- A installable version of 2.0 will be available by the end of August 2013
- Snap – version of Scratch 1.4 from Berkeley
 - Runs in a browser

Scratch 2.0 new features

- Create your own blocks
- Cloning
- Cloud data
- Sound editor
- Video sensing
- Vector graphics
- Backpack to share sprites and scripts



Agenda

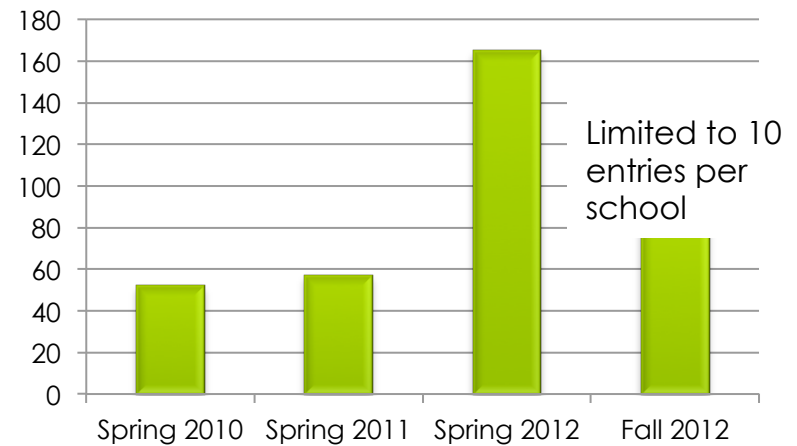
- Why run a Scratch competition?
- Georgia Tech's competitions
- Competition details
- How to advertise the competition
- Registration
- Entries
- Judging
- Awards
- Ceremony
- Timeline
- Scratch Resources

Why run a competition?

- Encourages local teachers to teach Scratch
 - Many teachers are afraid of programming and are reluctant to teach it
 - Need to get more teachers programming – 10,000 teachers by 2016-2017 for AP CSP
- Improves student's confidence and feeling of belonging in computing
 - Can increase parental support since families come to the award ceremony

GT competitions

- Number of entries in each competition since 2010
- Competition has had high female and minority participation
- Majority female in 2011 (51%)
- 44% URM in fall 2012



Competition details

- Two categories: Movies and Games
 - Individual and group (up to 3 people) entries allowed in each category
 - Divisions: elementary (Scratch only), middle, and high school
- Awards for each category in each division
 - Special awards:
Most Artistic, Best Comedy, Best Dance, Best use of Sound, and Most Original Idea, Best Educational Game, Best Educational Animation for elementary girls in Haiti.
- Requirements
 - Movies must be at least 15 seconds long and must be less than 2 minutes long
 - Games must include a video of someone playing the game that is between 15 seconds and 2 minutes long
 - And instructions for how to play the game

Advertise the competition

- Send e-mail to the local Computer Science Teachers Association (CSTA) chapter
 - Ask them to send it out to local teachers
 - Do some training on Scratch with local teachers if possible about 1-2 months before the competition
 - <http://ice-web.cc.gatech.edu/dl/?q=node/19>
- Post on Facebook and your website
- Send e-mail to students that you have done outreach with
- Give flyers to local schools or send to the PTSA at local schools
- Let kids know that are in Girls Inc, Girl Scouts, Black Girls Code, Girls and Boys Clubs, YWCA, YMCA, 4H, etc

Registration

- Students must register to enter
 - Open registration about 2-3 weeks before entries are due
 - Close registration 1 week before entries are due
 - Judging takes about 10 days
 - Use surveymonkey for registration
- Use registration data to determine the number of judges needed
- Always get less entries than registrations
 - In fall 2012 – 81 (63%) entries for 127 registrations
- Can limit the number of entries per school
 - 10 per school in 2012

Registration data to gather

- Division (ES,MS,HS), category (movie, game) , type (group, individual)
- Student name, e-mail address, and home address (for sending certificates or prizes)
- Parent name and e-mail address
- School name
- Teacher name
- Gender
- Race
- Grade
- Where did the student learn Scratch?
- Can the student attend the awards ceremony?

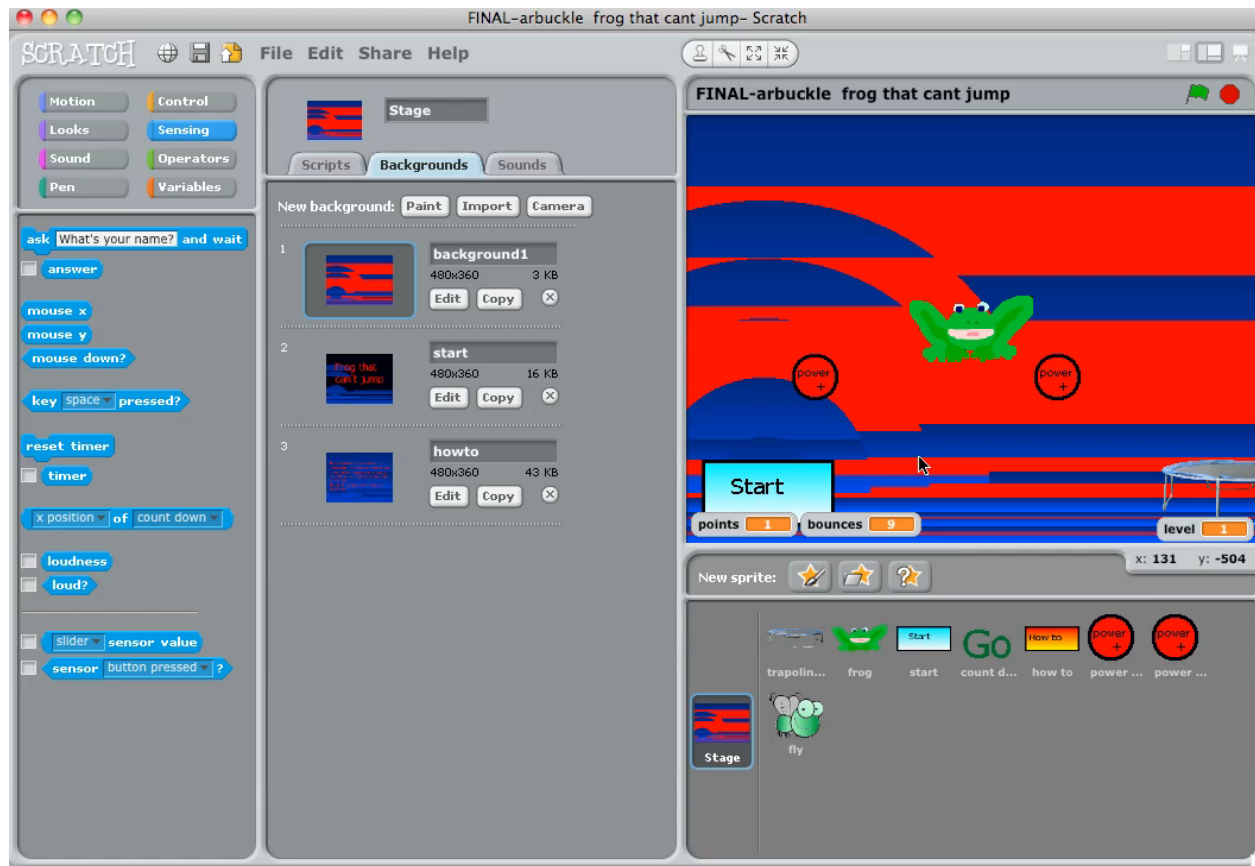
Competition examples

- Elementary school individual animation



Competition examples

- Elementary school individual game



Competition examples

- Middle school individual animation



Competition examples

- Middle school individual game



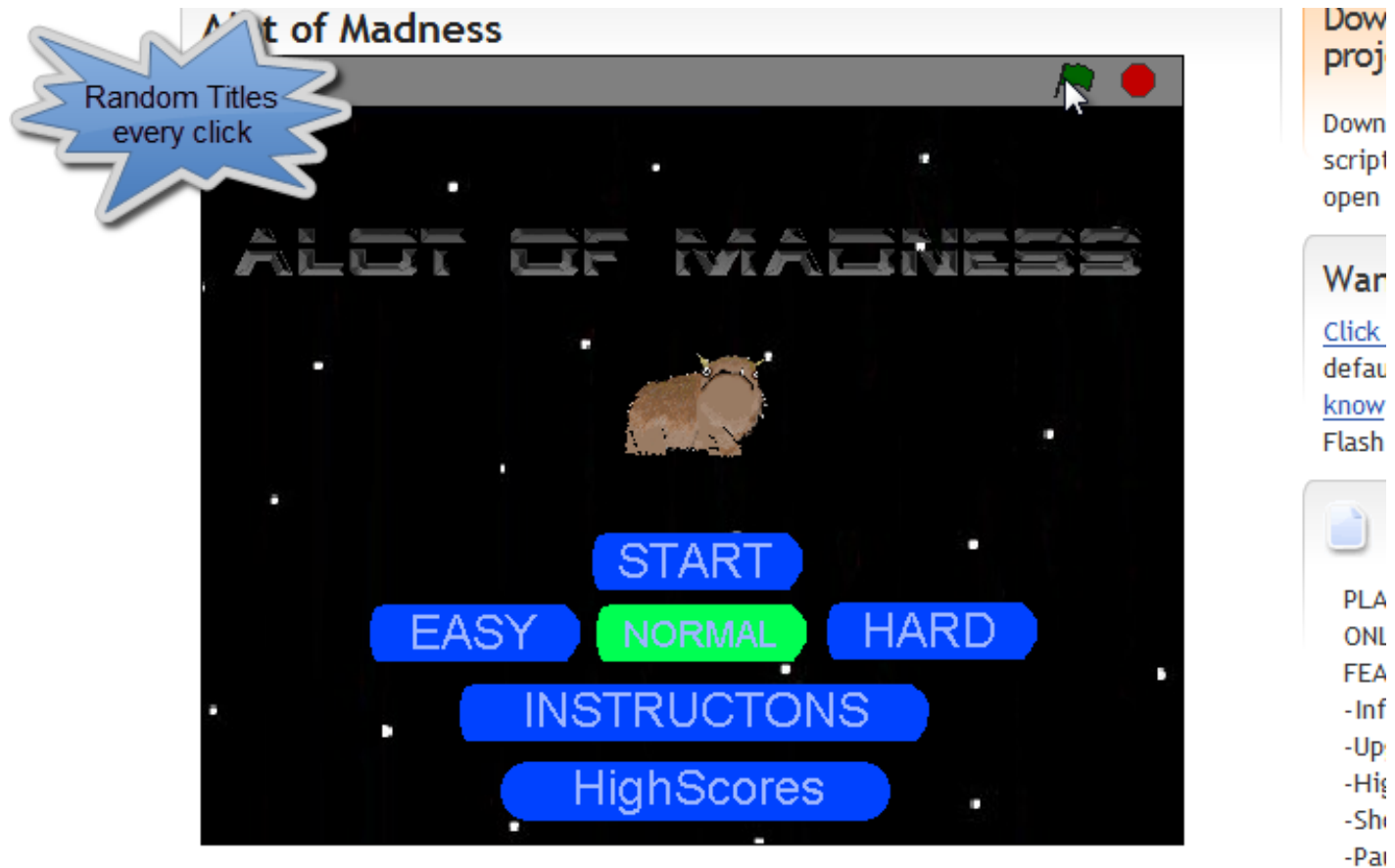
Competition examples

- High school individual animation



Competition examples

- High school individual game



Best Dance



Best Educational Game



Entries

- Students upload their projects to the Scratch website – scratch.mit.edu
- We use a wiki to keep track of the entries and as a place for students to upload additional materials like videos and documentation
 - Could use a dropbox instead
 - Could use google sites <https://sites.google.com>
- Each entry is on a separate page or directory

High School (9th - 12th grade)

High School Group Animations 5 entries - 1 late

1. [Wayne Roberts, Ethan Summerlin, and Wyatt Young - Fall Scratch 2012](#) - Alexander High School, Leslie Smart - ENTRY
2. [Kealen Wesley, Anna Butler, and Taylor Hughes - Fall Scratch 2012](#) - Alexander High School, Leslie Smart - ENTRY
3. [Ian Roughen and Elijah McCoy - Fall Scratch 2012](#) - Howard High School, Joe Finkelstein - ENTRY - 1st

Judging

- Entries are judged on creativity, originality, technical merit, and how well they follow good programming practices
- Each entry is judged by 2 people
 - A review is done to check that the scores are not drastically different
 - The top scoring entries in a category are reviewed by two more people to pick 1st and 2nd
- Assign all entries in a category to the same judge if possible
 - For consistency
- Judging data is entered in surveymonkey
 - Downloaded as a spreadsheet

Judging criteria

Creativity

How creative is the animation or game? Does it include several sounds or just background music? Does the artwork seem well designed (good color combinations, attractive)? How engaging is it? Do you want to watch it again? Do you want to show it to others?

Design

___/1 below average art/color, ___/2 average art/color/ ___/3 great art/color

Good use of sound?

___/1 one sound, ___/2 more than 1 sounds

Sprites

___/1 (modified Scratch sprites or imported pictures)

___/2 (created own sprite(s))

How engaging?

___/1 (want to see it or play it again)

___/2 (want to show it to others)

___/3 (Wow! – blew my socks off)

TOTAL

___/ 10

Originality

Is it a completely original, not something taken from TV, books, videogames or movies?

TOTAL

___/ 10 (0 for none, 5 for average, 10 outstanding)



Judging criteria - continued

Technical Merit

The technical difficulty of this entry.

Uses broadcast and receive

__/2

Uses at least one loop

__/1

Uses at least one conditional

__/1

Uses at least one list

__/1

Uses at least one variable or timer

__/1

Does some string processing

__/1

Number of scripts

__/1 (for 1-5) __/2 (for 6-10) __/3 (for 11+)

Number of sprites

__/1 (for 1-5) __/2 (for 6-10) __/3 (for 11+)

Changes the background

__/1 (for 0-3 changes) __/2 (4+ changes)

TOTAL

__/15

Judging criteria - continued

Programming Practices

Commented code, scripts are kept small (no more than 5-10 blocks per script), the names of message and variables are meaningful, and there are good project instructions,

Comments in code

___/ 1

Scripts are small

___/ 1

Good names for messages and variables

___/ 1

Good project instructions

___/ 2

TOTAL

___/ 5

Total for each entry _____ out of 40

Judging - continued

- We have used undergraduate students and local teacher volunteers
 - No teacher judges his/her own students
- Each person judges 10-20 entries over 1 week
 - Each entry takes 10 – 20 minutes to judge
- Grading rubric
 - <http://home.cc.gatech.edu/ice-gt/550>
- Reference for judges
 - <http://home.cc.gatech.edu/ice-gt/uploads/550/Scratch%20Judging%20Reference.pdf>

Awards

- We have given away about \$3,000 in awards
 - Items like headphones, kindles, drawing tablets
 - To categories with at least 5 entries per category
- Used income from teacher workshops and or summer camps to pay for awards
 - Could ask local businesses to donate
 - Could charge a fee for each entry
 - Could just give certificates

Awards ceremony set-up

- Sunday from 2pm – 4pm
- Signs to direct people to event
 - People will show up late
 - People will get lost
- Use a large enough room for families as well as participants
 - And another room for prizes
- Have a projector and screen to show winning entries
- Invite families and teachers
 - Recognize the teachers as well with t-shirts

Awards ceremony

- Start with a short talk about computing
 - Lots of high paying jobs predicted for the future
 - One of every 2 stem jobs will be in computing
 - Lots of interesting work that can help people
- Announce each winner and give certificates
 - Get pictures – parents often want to take a picture too
 - Show entry while that person/group is picking a prize in a separate room



After ceremony

- Review competition with workers
 - Looks for ways to improve
- Send e-mail to local teachers
 - Thank them for participating
- Update website to showcase winners
 - Add pictures from ceremony
- Contact students that couldn't attend the ceremony
 - To arrange pick up of certificates and prizes

Timeline

- Pick a date for the awards ceremony
 - Sunday afternoon works well
- Set date for entries to be due about 10 days before the awards ceremony
- Set date for registration to close about 1 week before entries are due
- Update the website and advertise about 1-2 months before the awards ceremony
- Do teacher training 1-2 months before
- Order prizes about 1 month before awards ceremony

Scratch Resources

- Website: <http://scratch.mit.edu>
- Teacher website:
<http://scratched.media.mit.edu>
- Georgia Tech's distance learning website
 - <http://ice-web.cc.gatech.edu/dl/?q=node/19>
- Georgia Tech's Scratch Competitions
 - <http://home.cc.gatech.edu/TeaParty/346>
- Free book
 - http://stwww.weizmann.ac.il/g-cs/scratch/scratch_en.html

Summary

- You can run a Scratch competition
 - Start about 2-3 months before competition awards ceremony
- Scratch competitions are a good way to encourage local teachers to teach Scratch
 - And a great way to increase students interest in computing
- Scratch competitions attract a higher percentage of females and under-represented minorities than most computing competitions