Tech News

Chainmail next week

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Next week I hope to have copper wire and tools for Tech Club members to be able to make chain mail. Nick's Dad has kindly offered to loan us tools, and I have also ordered some 5-tool sets that cost (with shipping) only $8 per set, if any one wants to buy cheap tools. These tools will also be useful later in the year when we do some electronics work.

Scratch version 1.2 in beta release

The next version of scratch (version 1.2) is almost ready for release—they hope to have it finished by the end of November. They have done a beta release for testing, which Abe and I have played with a little bit.

There are a number of improvements in this version, which should make some programs simpler to write. For example, you can now find out what costume number your sprite is currently wearing, and use that to determine what the sprite does. There is also a volume control for the sounds made by each sprite, so that you can do music with dynamics, making things get louder and quieter, though the volume only affects new notes, not ones that are already playing. They also have "tempo" so that durations of notes are all in beats, rather than seconds, but they are still playing with that idea—I don't think they have it quite right yet.

There are no new control blocks, but they do have a comment block now, so that comments can be added to code, explaining what is going on.

One of the nicest changes is in the "Sensing" pane, where you can now get a lot of information about other sprites, like their position, direction, costume number, and volume. This eliminates a lot of the need for variables for passing information between sprites and will simplify a lot of programs.

The "Numbers" pane has added a lot of more sophisticated math functions (sqrt, sin, cos, tan, ln, e^x, log, 10^x, …). Although many of these functions will be mysterious to most Tech Club members, they make possible a lot of extra capabilities in sprites. In some cases, you will be able to copy scripts that do useful operations (like bouncing realistically off of sloping objects) even if you don't understand all the math.

It is also now possible to slip blocks into the middle of a script without having to pull the script apart, which makes editing code somewhat faster.

There are still bugs in the beta release, so I won't be installing version 1.2 on the school computers until it is officially released, but anyone can get it from the site http://scratch.mit.edu/pages/beta

Future tech projects

In addition to scratch programming and making chainmail, I'd like to do some other tech projects, but I need feedback from tech club kids (and parents) about what projects to try. For example, we could do some soldering of electronics kits, but this requires purchasing kits ahead of time, so I'd need to know who wants to do the projects. The kits I was thinking of are simple blinking LED projects, like this "shaking electronic die" that Abe made from a Velleman kit. We bought the kit from Ramsey Electronics, which carries a wide range of mini kits, from about $7 to about $40 (the dice are about $12 each).

Another type of project I was thinking of is card weaving, which is an off-loom weaving technique for making narrow fabric (belts and straps) with very little equipment—just come pieces of cardboard and a small piece of wood. There's no room for pictures this week, but I'll try to put them in next week.