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Graphics Homework Two: L-Systems
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Tony and I are weebs that love Naruto. A major part of the original Naruto series are patterns known as curse marks. Curse marks start out small, but grow across the owners entire body in a repeating and predictable way when their power is activated. This type of pattern pairs nicely with the repetition and transformations involved with L-Systems.

For our two L-Systems, we attempted to replicate two curse marks, those of Kidomaru and Sasuke. For both systems, we added in options to make the curse mark pulsate, to replicate the effect the mark has in the show.

Kidomaru has the ability to make spider webs by infusing his spit or sweat with chakra. His curse mark is a series of curves and swirls. To go along with the spider theme of the character, we also added in a particle system of spiders. This scene begins with a three bezier curve windmill shape, it slowly builds more curves off of the middle of some curves, and off of the main one. Extending further out with translates and rotates. We did this by repeating the following pattern: [B-MBMB+B]ER-. B draws a bezier curve, - and + rotates with an applyMatrix on the y axis, M translates to the middle of the last curve drawn, E translates to the end of the current mark (which is the mark that directly extends out from the middle), [and] push and pop matrix, and rotate turns the curve 90 degrees.

Sasuke's mark is an irregular shape, but can be reproduced as a series of curves and arcs. His signature move is Chidori, a lightning-style attack, so we made a lightning particle system for his mark. We made this mark by repeating the following pattern: MT[rMAtM]DDDM. M makes an arc that is only filled on its chord, T translates 10 units up, r rotates -30 degrees, A applies matrix to flip on the y axis, t translates right 65 units and down 5 units, and D translates right 10 and down 10 units. The arcs built themselves straight out from the origin on top of the last while rotating to produce offshoots of either side.