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Competitive Analysis

Game Mechanics

* The client calculates the blob's mass, e.g. for displaying a score. Size, not mass, is used to determine each blob's drawn radius. All formulas on how to calculate mass, size, and radius can be found here (<http://agar.gcommer.com/index.php?title=Formulas#Mass_from_Size>).
* The size threshold for one blob to eat another is between 82-85% (That is, a victim must be <85% the size of an attacker to get eaten).
* Splitting seems to propel the newly split blobs a distance between 660-820 units from the original blob at high speed, irrespective of the size/mass of the blob doing the splitting. When split, the new blob gets an initial speed boost of 80 units per tick. The blob's speed is then decreased by 10% each tick, resulting in a slowdown to the normal blob speed around the 40-50th tick after splitting. The total distance gained by this process should be 760 units, although it sometimes is more or less than that. [Source](http://lunarco.de/agar/speed_ticks_3.svg). 36 mass is the smallest a blob can be and still be able to split.

Specialties

* Customize size, customize the pics inside the circle, and maybe incorporate opencv for hand control for uniqueness.