

Solution Matrix: By: Jerry Wang and Anthony Ou		Solution 1: Conveyor Belt System - Using a sieve to limit the sorting to one at a time, we then have three main parts; the conveyor belt that transports the objects, a box containing light sensors to determine where to sort, and a series of push switches to physically sort the objects. By using a conveyor belt, an arduino can easily change the speed of the belt motor.		Solution 2: Angled Sorter System - Similar to the Conveyor Belt System, we use a sieve to limit the sorting to one at a time as well as the light detector to sort the objects. However, this system would more complex by design due to the angling of the machine to use gravity instead of a conveyor belt and additional sieves to control the speed of falling sorted objects.	
	Weight:	Solution 1 Raw:	Solution 1 Final	Solution 2 Raw	Solution 2 Final
Simplicity of the solution	2	1	2	0	0
Effectiveness of the sorting	2	1	2	1	2
Cost of the materials	1	0	0	1	1
Flexibility among different candies	1	2	2	2	2
Size of the solution	1	1	1	0	0
Speed of the sorting	2	1	2	1	2
Noise that it outputs	1	0	0	1	1
Similarity to previous solutions	2	1	2	1	2
Total:			11		10
Halloween is festive time where children go door to door to receive candy. But problems do arise when they many of them come home. In our society, people have preferences as to which candy they would choose. Due to their pickiness, many people of all ages display preference to which candy they would eat. This preference often introduces a problem as marketers sell candy mixed when there are preferences to which candy one would eat. A candy sorter would organize candy by types and by color and thus reduce the time that people would need to dig through all their candy in order to get the specific one they like.					