Pop Pickin’

Description of the contest

The Pop Pickin’ competition requires a robot to “pick” lollipop trees from within the arena. The lollipop trees will be placed at regular intervals along a guideline. The lollipop trees can either be swept up, picked up or picked for extra points.

- If a lollipop tree is knocked over, it doesn’t score.
- If a lollipop tree is swept along with the robot but remains in contact with the arena surface, it will score one point.
- If a lollipop tree is lifted from the arena surface and remains stored within the structure of the robot and no longer in contact with the arena surface, it will score two points.
- If the lollipop is actually picked, ie; detached from it base, and stored within the structure of the robot and no longer in contact with the arena surface, it will score five points.

Each robot will get three runs with the eventual score being the best of the three. The winner will be the robot with the highest best score. If there is a draw, the most appealing design, as determined by a popular vote will be declared the winner.

The Arena

The arena will consist of a flat 4’ x 8’ area with four 2” x 4” walls. This will result in a playing area of 44” x 92”.

Lollipop trees will be placed in three rows of four trees along a black guide line. Extra black markers will be placed along one side of the line for the robot to use to determine where it is along the line. The robot can choose which end to start from depending upon which side of the line it would prefer to see the markers.
**Timing**

A run will have a time limit of two and a half minutes. This allows adequate time for the robot to concentrate on accurately collecting lollipop trees and not hurrying.

**Starting Position**

The robot will start with its most forward piece of structure above or in line with the first marker on the guide line.

**Lollipop Trees**

The lollipop trees will be constructed from Spangler brand Dum Dum Pops and LEGO element part number 6222. This choice was made simply based on the fact that the stick fits so well into the cross axle hole in the center of the LEGO element used as the base.

![Spangler Dum Dum Pops](image1.png)

![LEGO Element Part](image2.png)

The lollipop tree is constructed by pressing the Dum Dum Pop into place in the cross axle hole until the end of the stick is flush with the under-surface of the LEGO part. Robots which can pull and retain the lollipop from the base will be eligible for the extra points. If the lollipop can be successfully removed from the base, the base may be discarded.

A lollipop tree is deemed to be knocked over if the spherical end of the pop is touching the arena surface.

**Construction Rules**

Robots must be constructed of 100% unmodified Lego brand parts. No adhesives or melting may be used in the construction of the robots. If LEGO string or LEGO rubber bands are used, they may not be used in such a way as to enhance structural integrity.