Straw Rocket Challenge

Story: Astronauts on the International Space Station are in need of a resupply. Your mission is to design a rocket that will successfully deliver payload to the ISS. The more payload your rocket can carry, the happier NASA will be. In our challenge today, we will use paper clips as the rocket's payload and a drinking straw as the rocket.

Materials: disposable drinking straws, paper clips, scotch tape, modeling clay, one 8.5" x 11" piece of paper, and scissors.

Objective: Build a straw rocket to launch as many paper clips (up to 10) as far as possible. The success of your launch will be determined by the number of paper clips, and the distance traveled. The distance will be measured from the front of the launcher to the closest paper clip on the rocket. You may be asked to take your rocket apart for judges to see the paper clips. Your team's score will be determined by multiplying the number of paperclips transported by the number of feet they were transported.

Safety:

1. Engineers should not enter the launch zone. Only our launch technicians are to be in the launch zone. Once launched the technician will mark the landing location and collect the rocket to be returned to the engineers.
2. Launch mechanics will monitor the fuel pressure for safe levels of operation and to make certain the launch follows the specifications.

Straw Launcher devices can be purchased here.

A version can also be built using a Garden Sprayer for a compressed air source.