

Paper Clip Challenge

At the start of the test, teams will be given two fresh D cells. Teams will have 5 minutes to place the cells into their system and set the system up. Paperclips will be Staples #1 size paper clips and several hundred will be scattered about the start zone. Clips cannot be moved in any way by the teams or by their system until trial timing begins. The D cells are to be the only source of energy for moving the paperclips, however the use of several AAA/AA/lithium cells in a hand-held control unit is also allowed. Human power can be applied to such a control unit but cannot, once the system is set up and the trial begins, be applied to the 'paper clip moving system' in any other way. The start zone, scoring zone, and exclusion zone are all 2ft by 2ft squares of level sanded plywood with a 1"by2" (nominal) rim of dimensional lumber around the perimeter (see diagram). Paper clips must be delivered from the start zone to the scoring zone and cannot touch the ground in the exclusion zone. The system likewise cannot touch the ground within the 2' by 2' exclusion zone at anytime during the trial, however it can extend (within reason) beyond the 2' by 6' area of the plywood zones. It is acceptable for paperclips to brush the 1"by2" rims while being transferred, but if they touch the exclusion zone surface they are disqualified. Paperclips that remain on the rims will not count, only paper clips fully inside the scoring zone matter. Paperclips that have not been fully placed (ie not fully released by your system) when time expires will not count. The score for your trial will be the mass of paperclips delivered. The time for the trial will be stopwatch timed to 4 minutes. You will be given two trials and the better result will count. You will have 5 minutes between trials to make adjustments to your system. The judges reserve the right to veto any design that they deem counter to the spirit of the rules and their decisions will be final. Please ask them *in advance* for clarification or adjudication in order to avoid disappointment on event day.

