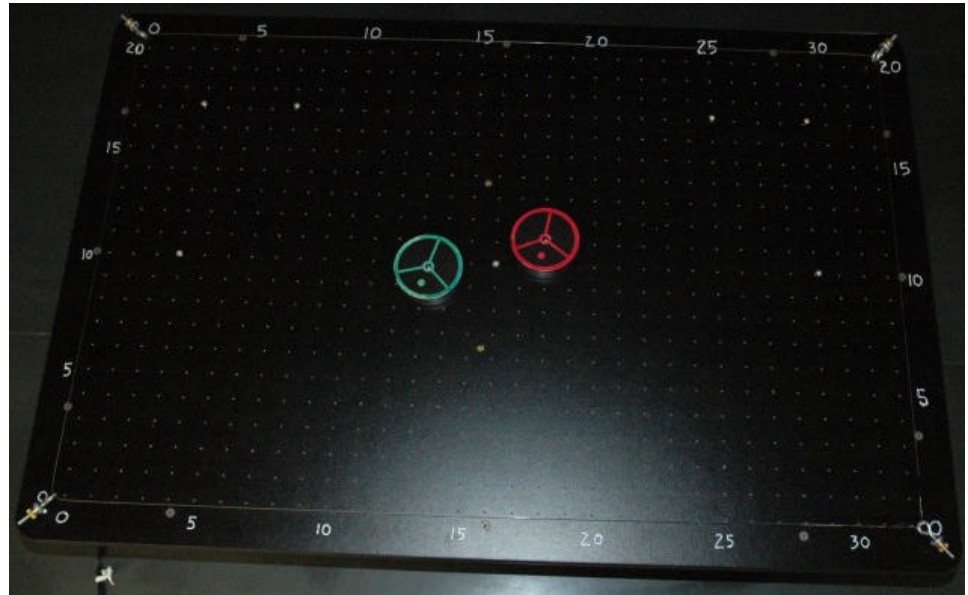


Momentum Conservation

This experiment has some similarities to the projectile motion experiment. We will use a video camera to record the motion of two pucks sliding on an air table. The air table is an almost frictionless surface, created by blowing air through small holes in its surface.



The pucks will be given an initial velocity, either using mechanical launchers, or just pushing them by hand. The grid you see is made of the air holes in the table, and we'll use these to help determine the position of the puck in each video frame.

A camera views the table from above, allowing us to record the x and y positions of each puck. From these positions, we can compute the velocity of each puck before and after their collision. A composite of several frames just before (solid arrows) and after (dashed arrows) the collision might look as shown here.

