

Hover Disc

Find an open area on the floor, switch on the hover disc, and set it in motion by giving it a push.

Describe the motion of the hover disc while it is in contact with your hands as you push it, and then once it has left your hands and glides across the floor (without hitting anything). Provide a **motion diagram** for this sequence of motion using at least 8 dots. In this and what follows, you may ignore any rotational motion of the disc.

Have a group member stand several feet away from the disc launch point with a whiteboard positioned as a bumper for the hover disc, or bounce it off a wall. Set the disc in motion such that it is aimed at the bumper and strikes it at some non-perpendicular angle.

Draw a **motion diagram** for this new sequence of motion from some time between launch and impact, until several seconds after impact. Include all appropriate velocity and acceleration vectors. If at any time a net force acts on the disc, include a vector to represent that force. **Qualitatively describe** what is represented by your motion diagram in words.