

Momentum Group Challenge

- Suppose that the pool table, Professor Formaggio, Mr. Jose Machuca and the finite rectangular floor that supports them are all floating on an **unbounded horizontal frictionless surface**.
- Mr. Machuca performs the ‘bank shot’ shown in the video, with the struck ball reflecting off the bank or side of the pool table and then into the pocket.
- Can you come up with some approximations for the velocity of each component of “The System” during the key time periods of this pool shot?
- Assume:
 - A pool ball weighs 170 grams.
 - “The System” (pool table [with balls], the floor, Prof. Formaggio and Mr. Jose Machuca) has mass of 700 kg.