DRAFT

Unit 4 - Worksheet 3

Hockey Table Analysis

For each of the situations described below, draw a physical diagram, the system schema, and the corresponding force diagram for the hockey puck from your Pyret simulation. Assume that the "object" in each case is the air hockey puck. Include the air hockey puck, the "agent" pushing the air hockey puck, and the table in the system. Assume that the friction between the air hockey puck and the table is negligible unless the problem states otherwise.

During Stage A: (Working air hockey table)

1. The hockey puck is at rest on the table before the air is turned on (not moving).

Physical Diagram	System Schema	Force Diagram

2. The "agent" is pushing the puck across the table with a constant force.

Physical Diagram	System Schema	Force Diagram

3. The hockey puck is coasting across the table *after* the "agent" gave it a quick hit.

Physical Diagram	System Schema	Force Diagram

During Stage B: (Simulating the broken half of the table)

4. The air hockey puck is moving on the left side, before there is any "friction."

Physical Diagram	System Schema	Force Diagram

5. The air hockey puck is moving on the right side while there is "friction"'.

Physical Diagram	System Schema	Force Diagram

6. The air hockey puck is moving on the right side, after coming to rest.

Physical Diagram	System Schema	Force Diagram

During Stage C: (Applying a force to keep the puck moving at a constant velocity)

7. The air hockey puck is moving on the left side, before there is any "friction."

Physical Diagram	System Schema	Force Diagram

8. The air hockey puck is moving on the right side, while there is "friction."

Physical Diagram	System Schema	Force Diagram

9. Show the air hockey puck as it moves across the midpoint boundary of the table.

Physical Diagram	System Schema	Force Diagram