**Force ILDs** Name pd

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| **What the demo is** | **My initial prediction** | **My prediction after discussion** | **What the actual result was** |
| The track is level, but there is a constant force acting away from the detector  The cart is initially at rest near the detector, and is released. |  |  |  |
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| The track is level, but there is a constant force acting on the cart toward the detector  The cart starts near the detector, is given a push away from the detector.  It rolls away from the detector, and then comes back to its original position. |  |  |  |
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| **What the demo is** | **My initial prediction** | **My prediction after discussion** | **What the actual result was** |
| Two identical carts A and B collide head on at the same speed. How does FAB compare to FBA? |  |  |  |
| Cart A collides with a stationary Cart B. How does FAB compare to FBA? |  |  |  |
| Cart A is given much more mass than cart B. They collide head on at the same speed. How does FAB compare to FBA? |  |  |  |
| Cart A is given much more mass than cart B. Cart A is moving and strikes a stationary Cart B How does FAB compare to FBA? |  |  |  |
| Cart A collides with Cart B that is against a barrier so it cannot move. How does FAB compare to FBA? |  |  |  |
| Two people A and B press the force probes together. First person A pushes person B to the right, and then person B pushes person A to the left. How does FAB compare to FBA for each of these motions? |  |  |  |