



Eksperimen Impuls dan Momentum

Tujuan

- Mahasiswa dapat mengukur Impuls pada kasus tumbukan
- Mahasiswa dapat mengetahui hubungan gaya dan waktu dalam kasus tumbukan



Linear Momentum

The linear momentum of a particle of mass m moving with a velocity v is defined to be the product of the mass and velocity:

$$\mathbf{p} = m\mathbf{v}$$



If a particle is moving in an arbitrary direction, \mathbf{p} must have three components,

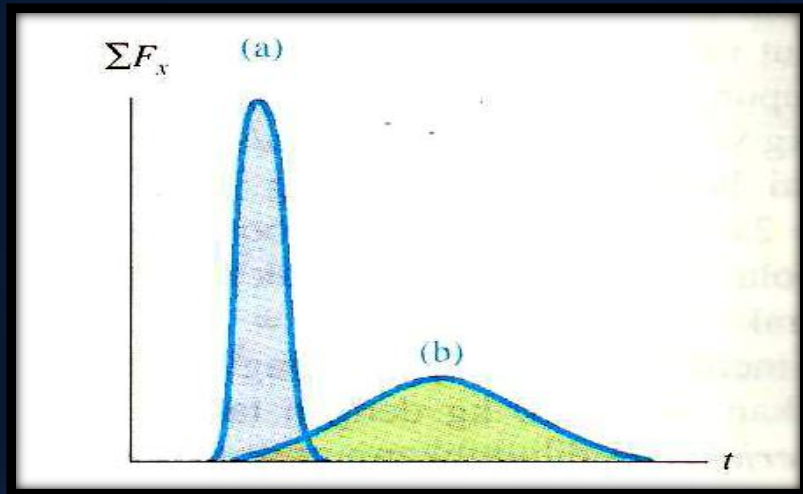
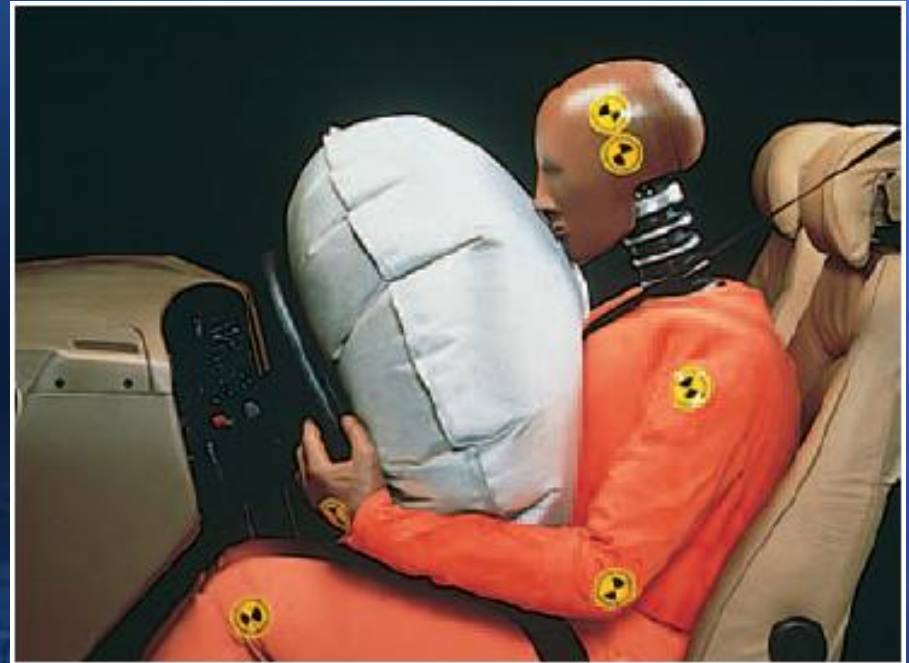
$$p_x = mv_x$$

$$p_y = mv_y$$

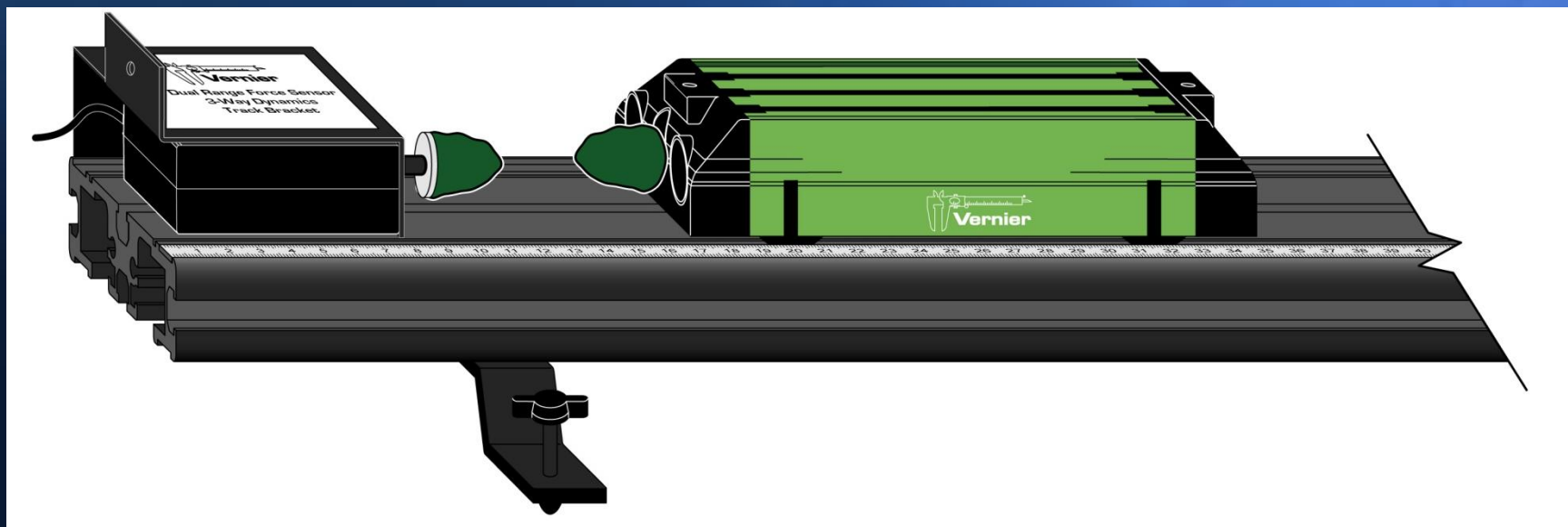
$$p_z = mv_z$$

Impulse and Momentum

$$\mathbf{I} \equiv \int_{t_i}^{t_f} \mathbf{F} dt = \Delta \mathbf{p}$$



Impulse and Momentum Apparatus



Experimental Result

