

# Time Dilation

What are the consequences of the fact that the speed of light is invariant in any inertial reference frame on the time measured by two observers in two different reference frames.

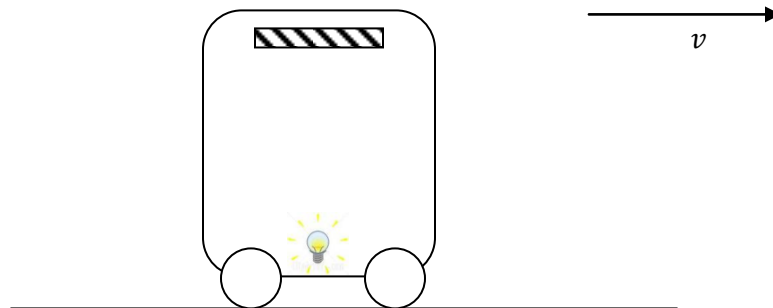


**ONLINE:**

<http://www.youtube.com/watch?v=KHjpBjgIMVk>

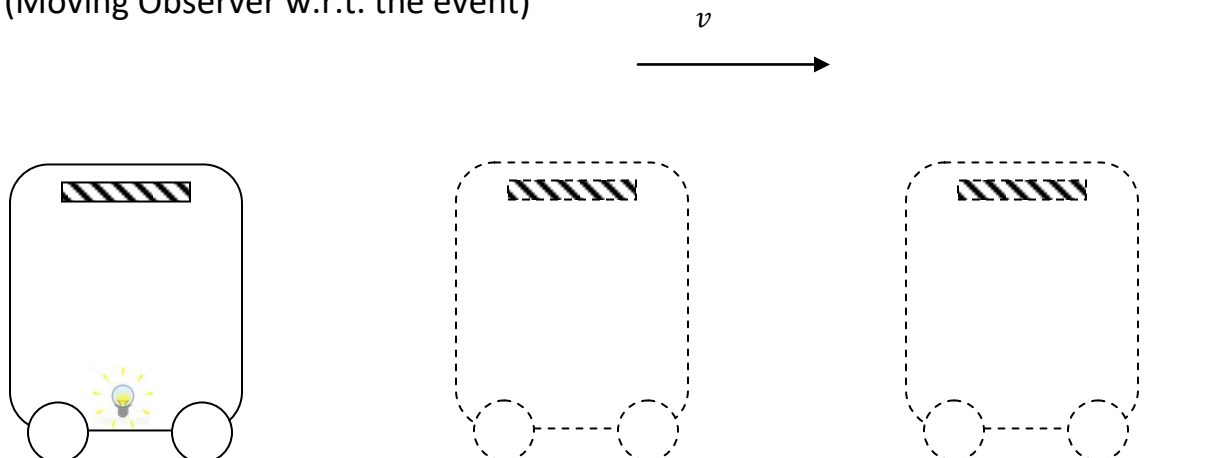
**Consider a reference frame moving with the train**

(Stationary Observer w.r.t the event)



**Consider a reference frame as viewed from an observer on Earth**

(Moving Observer w.r.t. the event)



## Mathematical Analysis