



S.T.E.M. WORKSHOP 2013

THE LOGIC TRAIN

Greetings Engineers.

Main Goal:

- To learn about logical relationships using two moving trains on several versions of tracks we will lay out ourselves
- To learn about the physics involved in acceleration, momentum and balance. which can cause trains to derail

Requirements:

- Create a single, cyclical track which will enable two three-car trains (engine plus three cars) to travel at the same time, in the same direction, with no derailments
- Create a track which will allow two trains to travel in opposite directions. Two switches are allowed.
- Create a track which will allow two trains to travel in opposite directions. If we use four switches (instead of two) what changes does this enable us to do?

Mission:

Fulfill all of the above requirements. That means some people need to work on trains, some need to work on tracks, some need to work on power supplies. . .

The TKP management group will be paid in local currency, and the people here trade in cookies. But for the TKP group to get paid, everyone needs to work at least some on every part of the project. If this requirement is not fulfilled even by one person, no one will get paid.

Bonus mission:

Assuming a flat and continuous surface for the laying of track. . .List the minimum supplies required to put three trains on a cyclical track, let two move in one direction and let the third train move opposite, and have no collisions and no derailments.

GOOD LUCK ENGINEERS.

S.T.E.M. WORKSHOP - 23 JANUARY, 2013