Houston Adventure Theme Park Challenge

The city of Houston has just approved the construction of an amusement park in the area. The amusement park will be called Houston Adventure Theme Park. The Johnson Engineering Group (JEG) has been selected to design one of the roller coasters for this amusement park. Our group (JEG) was specifically chosen because of our record for successfully creating energy efficient products. The park will only have roller coasters that rely on the force of gravity to move the cars.

The Vice President of Innovation, Dr. Kay Jones has decided to have all the engineering departments participate in this task.

Each department will have the opportunity to design a roller coaster. The roller coaster must have at least one hill, and one loop. Departments may add any other features to their roller coaster.

All roller coasters must pass a safety inspection, meaning the cars cannot fall off the track during the ride and the car must not move backwards for more than twenty centimeters in order to stop.

The roller coaster that meets the specified criteria, has the fastest average speed, and comes in on or under budget will be the one selected to go into the new park. In the event that you are over budget, your team must present a compelling reason why our firm should consider investing more money into your design.

You will have to demonstrate your model in front of your colleagues from other departments and be judged by the Vice President of Innovation or her designee and one other appointed judge. You will also have to present your findings, challenges and successes using a PowerPoint presentation. All slides must be turned into the judging team no later than 10 minutes prior to the close of the competition.

Your budget is $35.00