Engineering/METALWORK
Egg Gondola!!

Objective:
In the metalshop, there is a long cable that stretches from up high to the floor in the opposite end of the room. Near the end of the cable on the floor, there is a short partition wall and a "catcher" Tote / bucket.

You must create a device to travel down the cable, and safely deliver an egg to the drop zone in the catcher tote. Note: Only an egg must be dropped into the drop Zone, and the egg cannot be wrapped / protected in any way.

There will be foam or towel in the bottom of the Tote to catch the egg. The key is if you can drop it or not!

Evaluation:
This is a competition. The student who successfully delivers the egg the quickest wins.

Marks are as follows:

Fast + Safe Delivery	A
Safe Delivery	B
Fast and a Broken Egg	C
Non Delivery / Non Release	I

Original write up by R. Harmon

Parameters:
-Students are to work individually or in a group of 2 for half the glory
-Students will have approximately 10 classes to complete their Egg Gondola.
-Students will be evaluated individually, and assessed by their ability to work to reach a common goal.

Outline:
-Your task is to create an Egg Gondola capable of safely delivering an Egg to the Drop Zone. Measure the cable, partition wall, the tote, and the distance the tote is from the wall. Draw a diagram below of what it looks like.

-You will need to produce a plan to help you be successful. Ideation sketches must be completed before you start building your project. Plans are found on the following pages.

-Each Egg Gondola consists of 3 major components:

-A way to attach it to the cable (Pulley / Hook)
-The body or container
-A release mechanism

Restrictions:

-Overall length of Egg-Gondola must not exceed 36".

-All components including retarders/slow downs must travel with your "Egg Gondola".

-After release, No touching of cargo, container or tramway until destination and deployment is complete.

-Your Egg Gondola must only be powered by gravity. No pushing! Simply let go of your project at the top of the cable.

-You are not allowed to permanently attach anything **to the cable**. You must quickly and easily remove your project from the cable.

-SOME Materials can be utilized from the school, but better and more effective materials can be brought from home. The most successful Egg Gondolas in prior competitions were created with a majority of materials brought from home.

-Once you release your project you must not touch any part of it including a way to trigger the egg dropping into the catcher. It must release on its own. You may not pull a string yourself.

-Eggs will be distributed on competition day. No early birds, this is a one shot deal!

Detailed Sketches of Main Body/Container

Detailed Sketches of Pulley / Hook Attachment Method

Detailed Sketches of Release Mechanism

Detailed Sketch of Full Assembly / Working Components