EPro8 Challenge

Engineer Problem Solve Innovate

Pinball Machine – Teacher's Notes

Summary

Teams will build a fully operational pinball machine with a launching mechanism, tracks for the ball to roll down, paddles, lights, buzzers and a scoring system.

Principles

Measurement, Structure, Mechanics, Experimentation, Problem Solving and Electronics.

Extra Equipment

Hardboard Pegboard, 600 x 1200mm. Available from hardware stores for $22.

The holes on a pegboard are 4.8mm diameter. The EPro8 bolts are 5mm. You will need to give one of your students a drill, a 5mm drill bit and the job of re-drilling all the holes. There are 2,500 holes – so it will take 1-2 hours.

Snooker / Pool Ball (One)

Stopwatch

Rubberbands

What to Aim For

See the "Getting the Most from your Equipment" document for guidelines on what to aim for from these challenges.

The key to making the ball roll down in a controlled manner is to have a logical pattern of ramps each on a gentle angle.

Our Solution