

The Big Machine

KEY THEME: FORCES AND MOTION



Visit The Big Machine in Launchpad at the Science Museum.

Concept:

Big Machine: the legendary Launchpad favourite in collaboration with the Science Museum, can now be recreated for your space!

In 2006 The Science Museum's Launchpad development team commissioned Science Projects to redevelop an old friend 'The Grain Pit:' a highlight of the first generation of the Science Museum's Launchpad gallery. The result of this exciting collaborative project is 'The Big Machine' - A huge yet incredibly complex and refined, multiuser interactive exhibit whose impact dominates the Launchpad gallery today.

Make an enquiry

scm.interactive@sciencemuseum.org.uk

Tel. 0207 9424394

Big Machine tells the intriguing story of the working principles of machines; the wedge, the lever, the incline plane, the pulley and the wheel and axle. As users transport the tactile 'grain' through the machine's components it succinctly demonstrates these principles whilst engaging exploration and play.

The Big Machine appeals to young children and adults alike and is by far the most memorable Interactive to Launchpad visitors.

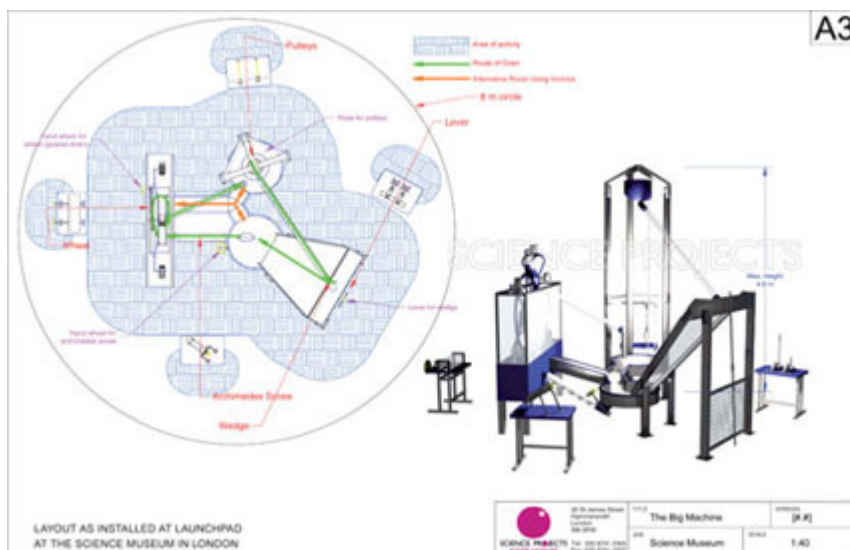
The Science Museum set a challenging task when they proposed the Big Machine. It had to demonstrate these individual machine components all working towards an end product. It also had to be collaborative and demonstrate the effectiveness of each component part in comparison to the others. In addition all the mechanisms had to be visible and it had to be robust after all 2.5million visitors to the Science museum will, prod, pull, and play with this interactive every year! The result of endless prototyping and tireless testing is what we can offer for sale today- The Big Machine!

We need to make some important decisions about the way we supply and use energy. These decisions are going to change the world we live in. Here's the full story on energy: the fossil fuels that we depend on now, why we can't go on using them like we do, what some people are already doing about it, and what the future holds.

Description:

The Big Machine is constructed using stainless steel which provides a tough and durable finish. It has a colour trim also from stainless steel which is powder-coated to provide the colour. Science Projects uses high quality, durable nylon coating which has an excellent resistance to damage by impact and abrasion. The five outer activities sit on tables made from high-density polyethylene maintenance which is impact resistant, recyclable and non-toxic. The table legs are made from nylon-coated stainless steel.

The entire exhibit will comfortably occupy an area of 50 to 64 square metres (164 to 210 square ft) and requires a minimum height of 4.8 metres.



Big Machine Built drawing by Science Projects.

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A Launchpad favourite; The Big Machine.

Target audience:

Enjoyed by all audiences but targeted at KS2 & 3 children (age 7-14) and their teachers plus families with children age 7-14.

Learning Concept:

The Big Machine sits within the Forces and Motion themed area of the gallery with a target educational audience of Key stage level 2 and 3. Characterised by movement, scale and activity the Big Machine demonstrates a range of learning outcomes including cognitive concepts and developing social skills.

Key messages:

- Machines make it easier for us to move things around or to do 'work.'
- A machine can be more or less efficient depending on its design and operation.
- Central to this theme is an understanding of how forces act to change the motion of objects – formalised in Newton's Laws of Motion. These laws describe how forces cause objects to speed up, slow down and/or change direction.
- Big Machine explores machines, the movement of materials, energy transfer and cooperative working.

Technical specification and hardware required:

The entire exhibit will comfortably occupy an area of 50 to 64 square metres (164 to 210 square ft) and requires a minimum height of 4.8 metres.

Location:

The Big Machine can be seen in action on the 3rd Floor of the Science Museum.

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