

the Naledi3d Factory Steam mechanics for kids – TMD (2002)

Purpose: To develop a simulation that uses an innovative way (VR) to present museum drawings and to become more aware of the 'hidden archives' of the **Techniek Museum in Delft**. Also to enable children (8 to 14) to better understand the mechanics of a "locomobile" - and hence, help to develop a better understanding of steam mechanics in general.



Partners:
TweenSense and the
Techniek Museum,
Delft - Holland

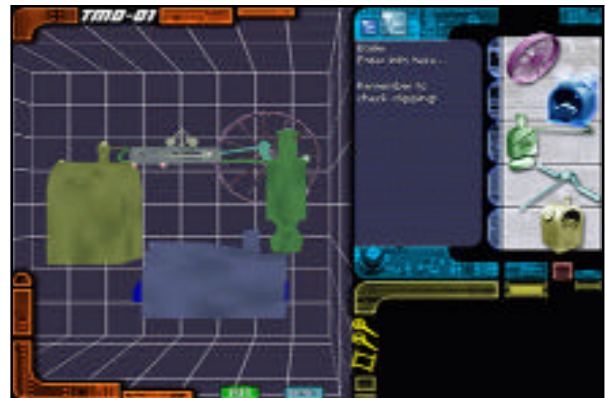


Setting the Scene:

An interface shows the 5 main components of a steam engine. The learner can select and drag each part into the construction window, build the engine in a 3D environment and see it working when they have got it right...

User Interaction:

This simulation allows the learner to select any one of the five components, view a brief animation of that component in operation - before dragging it into the construction window and fitting it to the rest of the components. In this way, the learner is able to build up the steam engine and gain an insight into how this engine, which was in popular use on farms and in factories in the 18th century, works.



Rewarding Learning:

The engine has to be constructed by learners in the right sequence. If they get it wrong, they are told so through the use of audio and have to try again. When this has been successfully achieved, the "locomobile" comes alive. The boiler fires up and the steam drives the engine, which turns the drive wheel. A dialogue congratulates the learner and explains in more detail how the engine works.

