

Warehouse Hoist

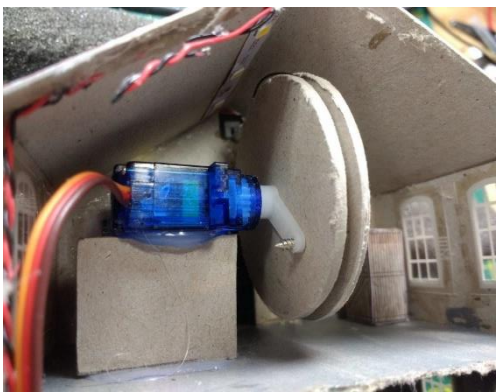


A working hoist is a key feature on our exhibition layout, Backen Forth, where a packing crate is lowered onto a barge.

In its most simple form a warehouse hoist is very easy to construct.

This construction uses a PMP18 EzyPoints kit, and a PMP20 Versatile timer kit, no programming is required.

The horn of a standard servo cannot produce the length of travel required by a hoist so the arc of the servo horn must be increased by lengthening it. This is achieved on Backen Forth by simply adding a suitable extension to the servo horn and feeding the attached thread through a small tube to the hoist. The horizontal movement of the servo horn is therefore converted to a vertical movement.



This construction uses a large wheel connected directly to the servo. Made of thick card the wheel consists of two large outer discs with a slightly smaller inner disc. The hoist thread winds around the wheel and operates much like a pit head winding wheel. The larger the wheel the longer the travel.

The packing crate is from the Wordsworth Model Railway website, where you will find some excellent free downloads. The packing crate is filled with Deluxe Materials Liquid Gravity to keep the hoist thread under tension.

The 180° option is chosen when constructing the EzyPoints kit to provide maximum servo rotation.

The versatile timer is used to set the frequency of the hoist operation.

An event sequencer, PMP26, could be added to include other animations, sounds, or lights.

The hoist sequence in Backen Forth includes a light coming on followed by a figure moving onto the hoist platform before the hoist operates. The choice is yours.

Click [HERE](#) to view video

Keith 3/04/20