

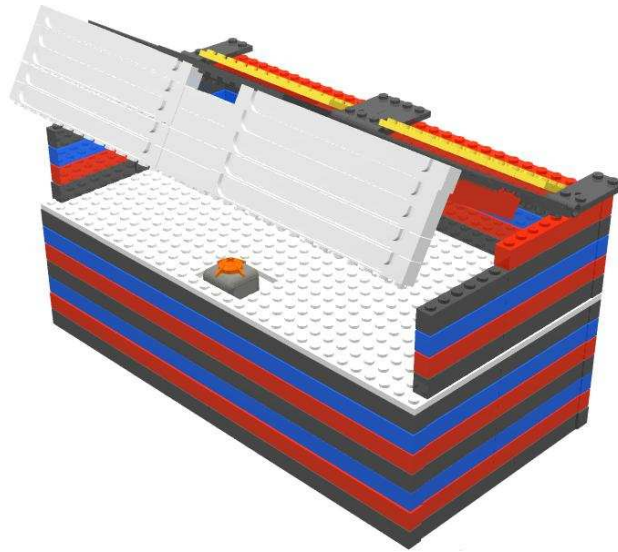
Music Box – NXT

Suggested Time

90 minutes

Challenge

In this activity, design and construct a working RCX or NXT music box in which LEGO mini-figures move while a song plays.



Age

8 - 18

Topics

Building & Programming

Subjects

Engineering & Technology

Programming Themes

Motor Forward

Related Math & Science Concepts

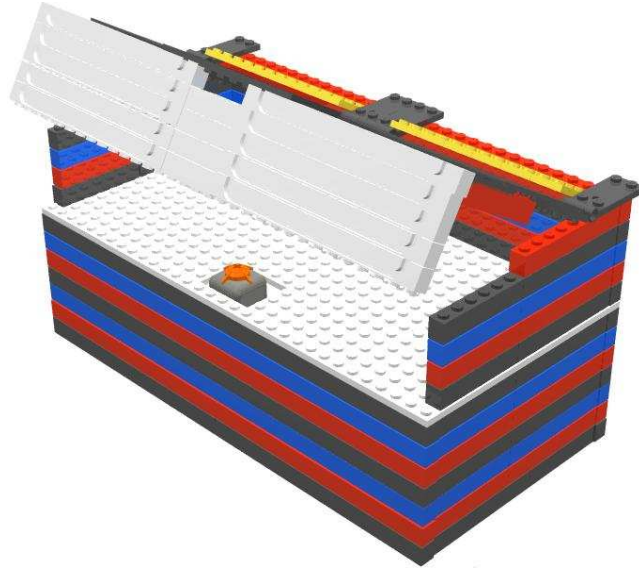
- Gears

Materials

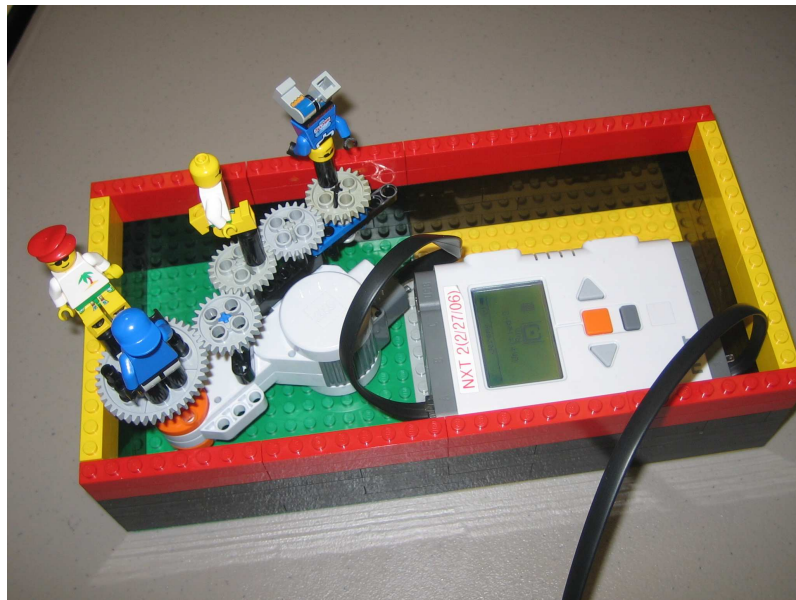
- RCX or NXT
- Assortment of LEGO Pieces
- Sensors

Building Instructions

1. Build a music box using either an RCX or NXT which uses at least 1 sensor and consists of gears.



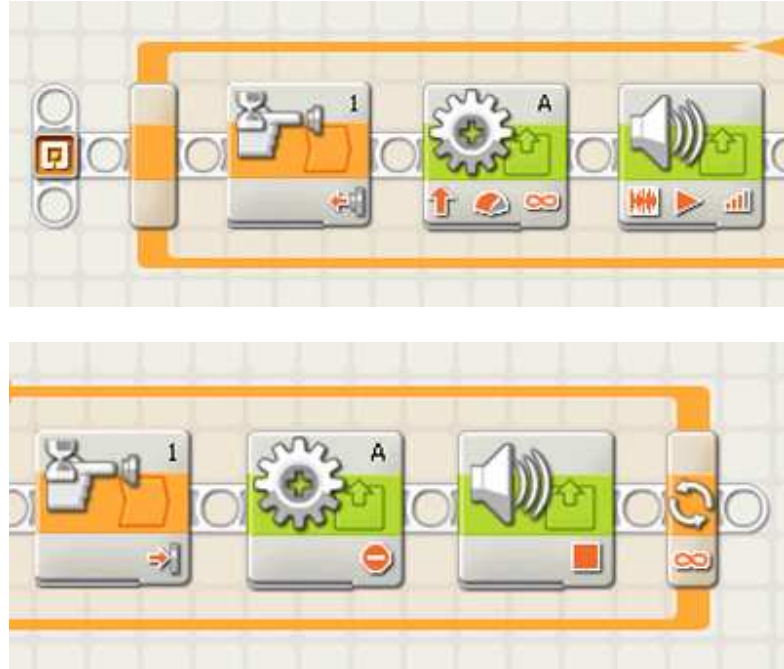
2. The music box should consist of at least 1 sensor and a series of gears.



Building Hints: Gearing Down will slow down your car but will supply more power for climbing.

***Programming
Instructions***

1. Here is an example LEGO NXT Software program:

***In Action***

Music boxes should have spinning/dancing components that move to music that is being played from the RCX or NXT.

***Building and
Programming
References***

- Building With Bricks
- Building With Plates
- Building With Beams
- Axle Uses
- Connector Pegs & Bushings
- The RCX
- RCX Motors & Wires
- RCX Sensors
- The NXT
- NXT Motors & Wires
- NXT Sensors
- Gears