



Merchant Venturers School of Engineering
Outreach Programme

Minecraft Redstone

Part 2 of 2: Mechanisms and Timing with Redstone

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Notes to Teachers & Helpers

- This workshop is intended to last 1 to $1\frac{1}{2}$ hours.
- This workshop is intended for ages 9⁺ (years 5⁺).
- The content is intended to be learnt through self-directed individual or pair game play, following the videos provided.
- The learning platform is Minecraft, the popular block-based building game.
- There are a number of versions of the Minecraft game, which as of May 2019 are all compatible with this workshop.
- Students should already be comfortable playing Minecraft.
This means they should be able to move easily, place and destroy blocks, use items, access the inventory (in Creative mode) and be familiar with the various block types available in the game.
- This workshop teaches the following skills:
Items marked with an asterisk are directly relatable to the National Curriculum.
 - Using iron doors, pressure plates and Minecarts
 - * Principles of digital design: Timing

1 Introduction

Hi! In this short workshop we're going to continue from the previous workshop to see how you might extend your locked corridor, and to build a cool-looking machine.

In the previous workshop we helped you along with screenshots and information. In this workshop we're going to follow two videos.

1.1 Single-entry room

For this section, we'd like you to follow along with the video to build a room that only one person can enter at once.

YouTube: Building a single-entry room : <https://youtu.be/wxFaW0UcTGI>

Once you've finished building the room, see if you can add locks to it on either side using the circuit from Minecraft Redstone Part 1.

1.2 Minecart Wave Machine

The Minecraft community has a wide range of videos about how to build things. For this section, we'd like to you to follow along with another member of the community to build a Minecart Wave Machine.

YouTube: Making a Minecart Wave Machine : <https://youtu.be/-AodAy8sPSk>

1.3 Challenges

See if you can build a Minecart Wave Machine inside a single-entry, code-locked room where the wave activates when you enter the room!

See if you can extend the Minecart Wave Machine design so that the Minecarts are always stopped in the right place, even if a player switches on and off the switch very quickly.