

## Rampstairs

At the beginning of term three this year we decided to design and build something that would make a disabled persons life a lot easier .

Often disabled people and able bodied people are separated in very basic ways . Consequently they have separate experiences . We wanted to find a way to combine these experiences.

We began by looking at the challenges disabled people face every day. An issue we landed on was the problem of access - going down or up stairs.

We know that ramps in buildings already exist but they are inconvenient because they take up a lot of space . Currently buildings need to install a ramp for the disabled and set of stairs for the able bodied population .

We then began to think of a way that both types of people, able and disabled, could enter a public building together without the separation of the disabled person having to go around a corner to even see, let alone use, a ramp.

What if there was a way that we could merge the two types of access ? Those types being stairs and ramps: a type of " ramp-stair" . This being stairs that collapse or compress into a ramp for the convince of space and multiple use . " How would that feel to be a disabled person" was the founding premise of our "ramp stairs"

This was only the thought structure for our "ramp stairs".

Practically, we began by researching materials that we could use in the scaled down prototype and also things we would ideally use if this were to become a real thing.

The materials for the " real thing " included ; a light weight metal for the base so it would not weigh down the stairs which needed to be easily collapsable , a customisable smooth material for the actual stairs so wheel chairs could glide down the ramp with ease , and a solid wall of some kind for the stairs to be attached to . The materials for our prototype included ; wooden dowl to take the place of the lightweight metal , wooden blocks ( cut on a 45degree angle on either side for

easy collapsibility ) to represent the stairs and a wooden board to stand for the solid wall.

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