



Project emPoweRED

An initiative to empower the PWD



We aim to revolutionise and uplift the state of PWD-Public washrooms. This document entails a detailed PoC and design ideas for the washrooms catering to the needs of the 'Divyang'



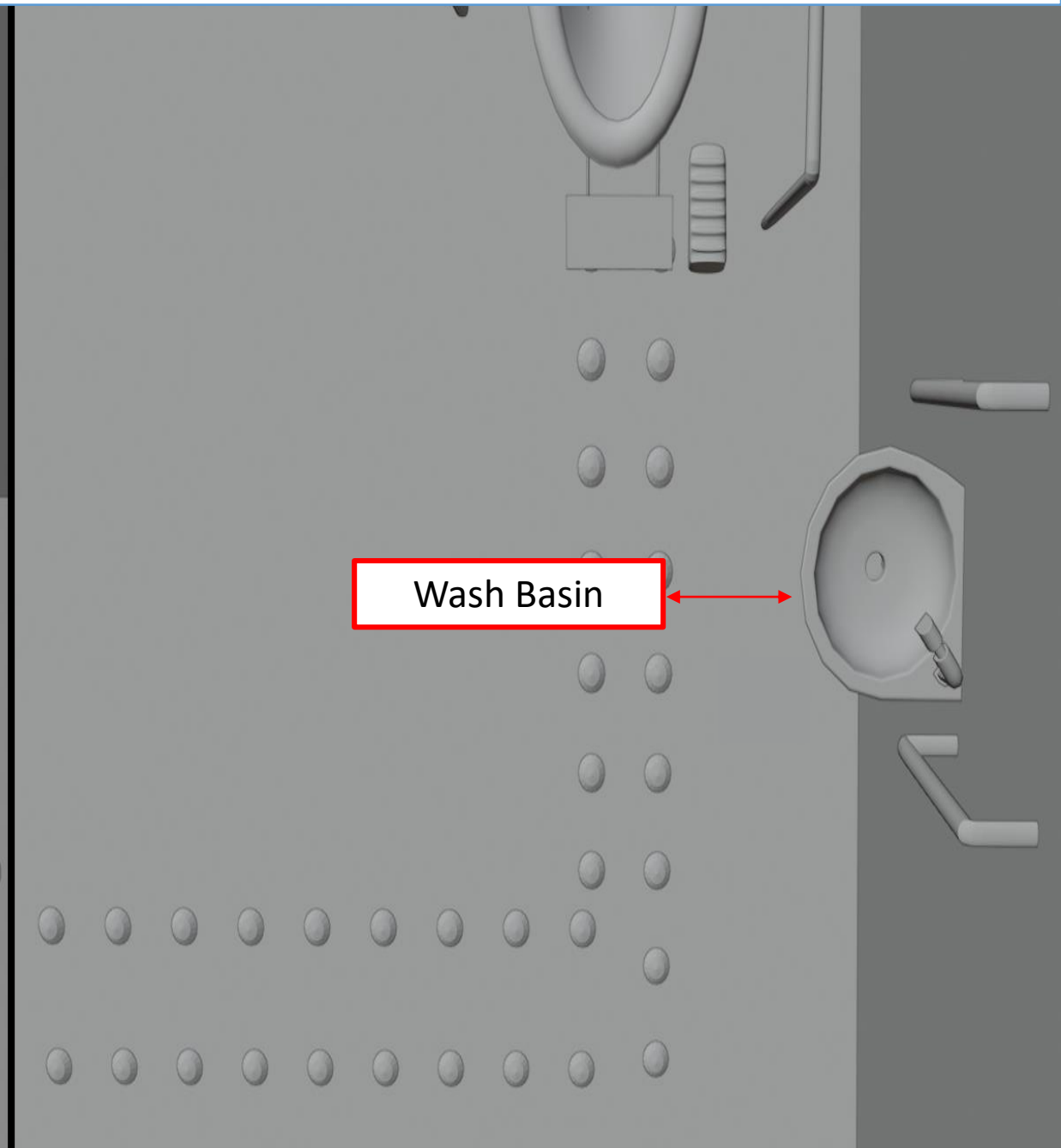
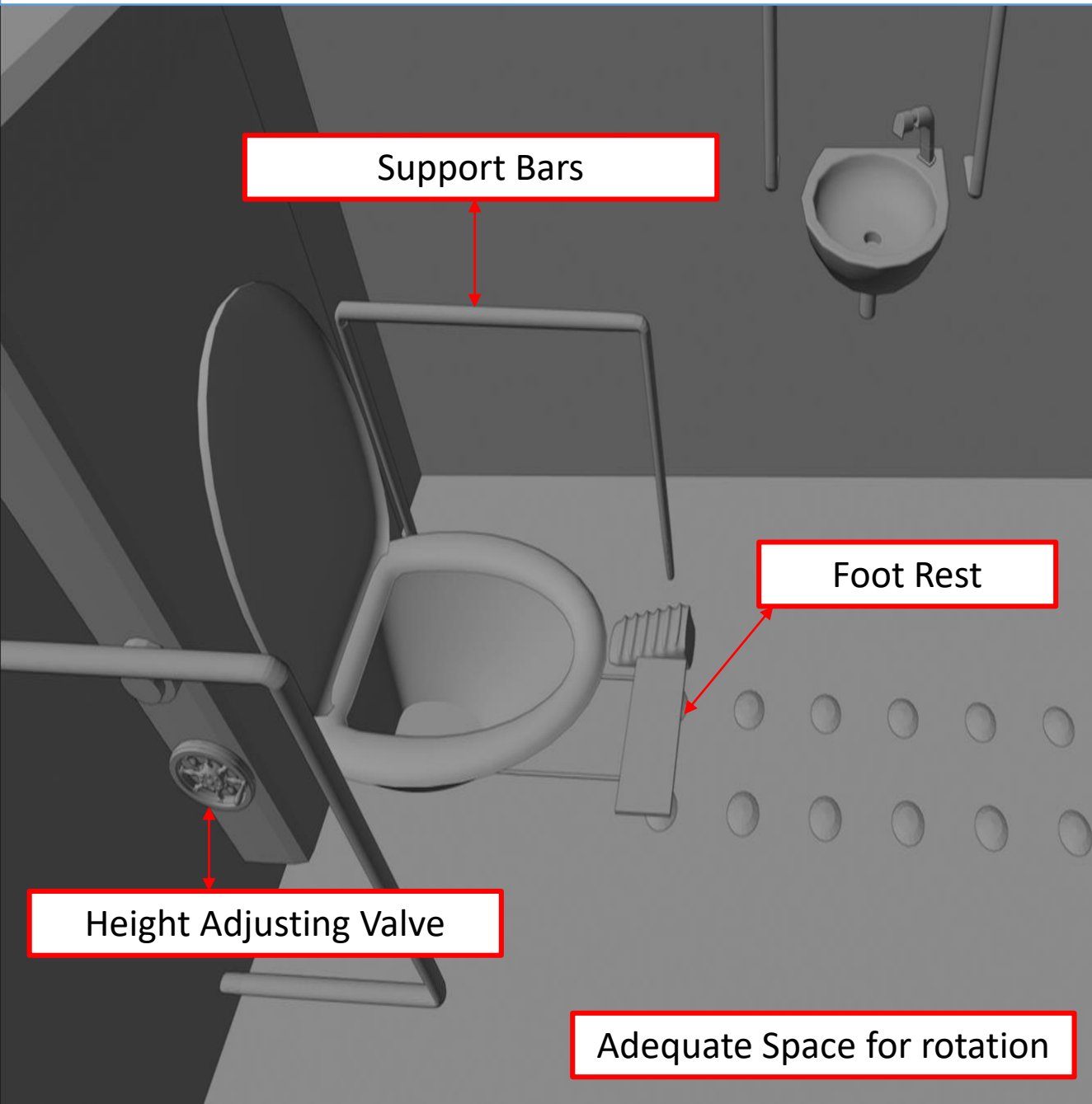
Revolutionising the definition of PWD washrooms

Majority PWD washrooms are made only as per the needs of wheel-chair ridden people whereas categories like Visually Impaired, amputees, people with mental disorders are often ruled out.

We want to make a change in this domain by widening our view of horizon and accommodating maximum categories under our belt. We wish to provide an exclusive solution for all these people.

Our washrooms are a one-stop destination for people with any physical/mental disability

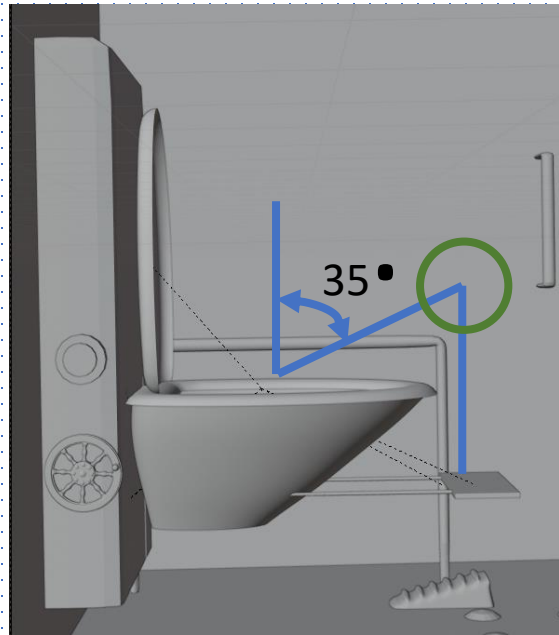
Designing and 3D Modelling of the washroom done on Blender



Introduction

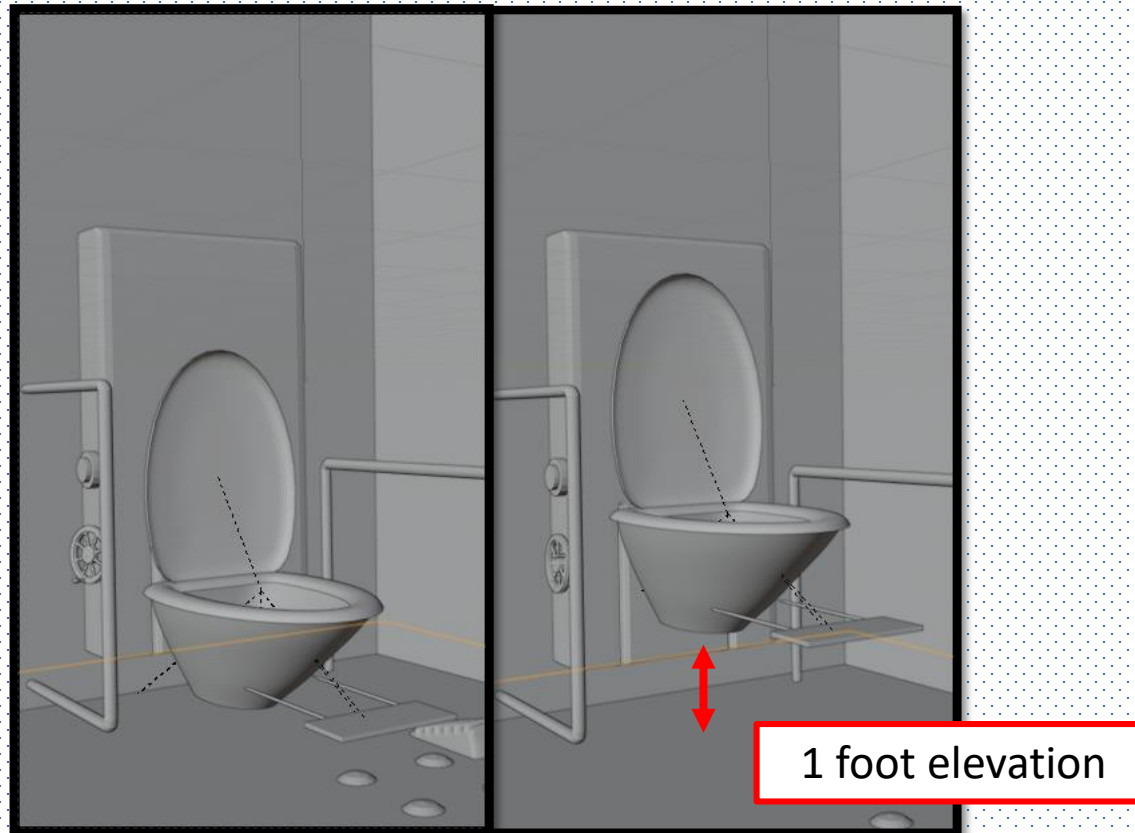
‘Project emPoWerED’ has been formulated considering the various needs and issues of the Divyangjan. The design has been laid down to facilitate independence and self-sufficiency in terms of the usage of washrooms. The solution takes into consideration the various parameters such as space utilisations, size adjustability etc.

Scientifically, squatting at an angle of 35 degrees facilitates better bowel movement. This is guaranteed by our squatting foot rest.

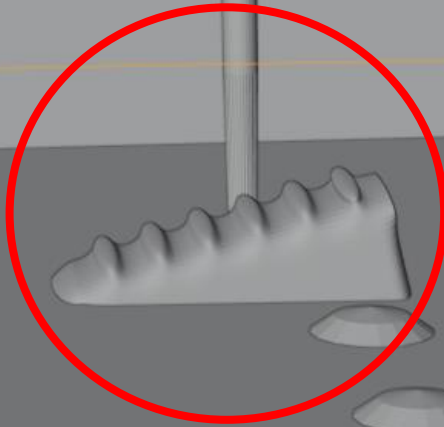


Height Adjustability

Moreover in this world of hyper-personalisation why should one commode height be the solution for everyone? Our design allows people to adjust the height of their toilet seat in accordance to their comfort. This serves to be of extreme importance to leg amputees, people with knee pain and even people suffering from dwarfism who can't climb up to toilet seat placed at a height. Easy shifting between the wheelchair and commode can be facilitated.

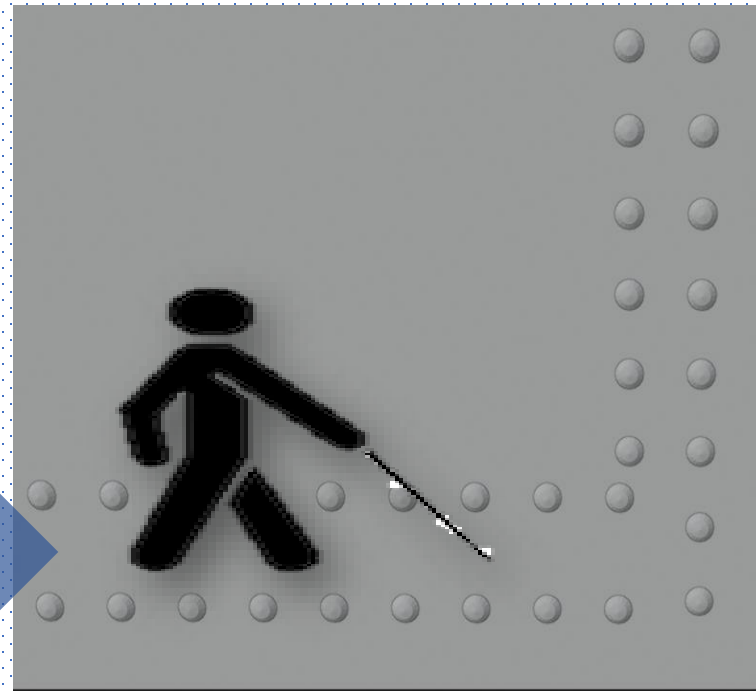


The installation of a foot- pedal controlled jet bidet system at the back of the toilet. This will primarily be used by people who have disabled or amputated arms and cannot use the tap system for functioning the jet/ bidet shower.



Pedal Jet Bidet

A raised trail structure shall be set up in place to make sure that visually impaired people can be redirected without any external help.



Catering To People With Mental Disorders

While majority washrooms cater only to the needs of people with physical disabilities, we want to opt for a holistic outlook and also help people with mental disorders including autism, ADHD, paranoia etc.

This will be taken care of by installation of redirecting lights and arrows.

Pictorial representations and indicative signs will also be utilised along with other calming and soothing elements that have a serene effect on these people.



A Step Towards Conservation Of Water

As the competition is in collaboration with ministry of Jal Shakti, water conservation is also one of the primary motives to meet. Thus we wish to help include this noble cause and solve it while empowering the Divyangjan. We've come up with an innovative design that utilises minimal amount of water to flush the majority surface area of commodes.

Inspired from the curved helical path of a screw, we realised that a drop of water released at the tip of the screw grazes the entire surface area as compared to a smooth screw. This small observation led us to redesign our conventional commodes and we ended up with special helical carved design to allow vorticity and circulation of water throughout the body of the commode.



Vs.



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