# O.D.M Open Design Mold by: EOOS NEXT

# O.D.M Open Design Mould



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O.D.M. - Open Design Toilet Mold by EOOS NEXT The toilet revolution for the bottom of the pyramid

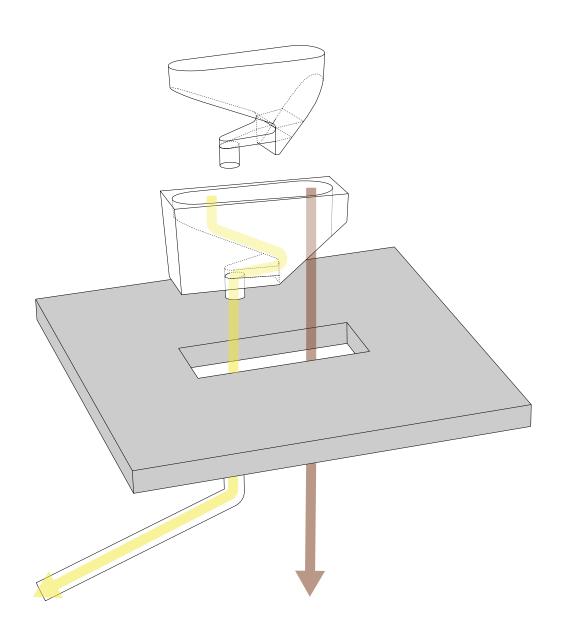
More than 35% of the world's population lack access to safe sanitation. The vision of this project is to empower local craftsmen around the world to integrate EOOS NEXTs 'URINE TRAP', a passive urine separation technology, into locally produced toilets by providing a simple mold.

With a grant from the Bill & Melinda Gates Foundation in its "Reinvent the Toilet Challenge," EOOS developed a separation system that can be universally applied to all typologies of wash-down toilet designs: pedestal or squat pan, cistern flush or pour-flush, washers or wipers.

Urine diversion is key to improving basic sanitary conditions. Urine mixed with feces causes smell and larger septic tank or pit latrine volumes; it increases the growth of pathogens which relate to the outbreak of diseases. Urine separation reduces nitrogen loads in aquatic systems and prevents eutrophication. The reuse of the nitrogen and phosphorus content in urine for agricultural purposes follows circular economy thinking. EOOS's Open Design Mold (O.D.M.) is an open-source manual enabling local craftsmen to manufacture a urine-diverting squat toilet.

The production is explained with step-by-step instruction and a video manual. The required skills are simple welding techniques and knowledge in concrete manufacturing. Before casting, a metal mold needs to be welded first. The mold can be further used to produce additional squat pans. Concrete is then poured into the finished mold and a standard PVC pipe is integrated to later be connected to a urine collection tank. After drying, the finished concrete squat pan is released from the mold and secured into a toilet slab. The casted squat pan toilet can be used to update existing slabs. As a proof of concept, the O.D.M. has been produced in Durban, South Africa, with local craftsmen. In a co-creation process, feedback from this first basic production trials has been incorporated into the production manual. In 2020, a joint field test with Swiss Sandec and Helvetas Foundation started in Nepal. Toilets for 20 households will be produced by local artisans and implemented into an existing sanitation system.

# O.D.M Slab Integration



#### O.D.M Local Production





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### Impressum

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