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Status of the CODEX-b experiment to search for long-lived particles in LHCb

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CODEX-b is a novel proposal to extend LHCb's physics reach in long-lived particle searches by placing a 10X10X10m3 tracking volume around 25m from IP8, inside the LHCb cavern. The potential sensitivity probes not only high center of mass energy portals such as the Higgs invisible width to dark photons, but also low-scale vector, scalar or fermion mixing portals, such as heavy neutral leptons and new Higgs-mixed scalars. While the full proposal aims for the HL-LHC era, a smaller 2X2X2m3 demonstrator is being planned to be installed during 2021, to enable data-taking during Run3. An overview and current status of the project will be presented.

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