Transportation is one of the largest contributors to global CO_2 emissions. Gasoline-powered vehicles continue to release CO_2 directly into the atmosphere because catalytic converters cannot remove this stable combustion byproduct (EPA, 2023; Hamilton et al., 2023). As climate change intensifies, the need for accessible carbon mitigation technologies grows increasingly urgent (IPCC, 2021). However, there are few consumer level technologies readily available. This project proposes the development of a CO_2 Filtration Device for Automobile Exhausts; an attachable, low-cost system that uses hydroxides to chemically convert CO_2 into stable carbonate during emissions. This project makes use of chemical hydroxides, which, when contacted with CO2, chemically reacts with the gas and creates byproducts of carbonate and water. It currently uses NaOH, which is well supported in carbon-capture literature for its fast reaction kinetics and strong absorption capacity (House et al., 2011; Stern et al., 2012). Preliminary impinger testing demonstrated approximately 75% CO_2 removal in one minute at low concentrations of CO2. However, it becomes increasingly ineffective at higher concentrations of CO2, generally proving to be unfunctional at 20% CO2 concentration in preliminary testing. This could be improved upon in further testing through increasing hydroxide amounts and possibly adding a multi-layered filtration system. By adapting principles from emerging mobile carbon capture research (Kim, 2024; Hadi, 2025) and distributed CO_2 removal technologies (Prats-Salvado et al., 2024; Li et al., 2024), this project aims to develop a consumer-level, vehicle exhaust scrubbing device that enables individuals to directly reduce their carbon emissions during automobile transportation.