

Abstract Submitted  
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**Pufferfish: Developing a rapidly scalable full-feature ventilator for COVID-19 patients with ARDS**

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PEZ-GLOBO COLLABORATION<sup>1</sup> — We describe a rapidly scalable open-source full-feature ICU ventilator designed for COVID-19 patients with ARDS. Pufferfish was designed in a consortium effort with multiple universities and industrial partners to address ventilator shortages, including accounting for uncertainties in the supply chains of parts commonly used in traditional ventilators to enable distributed manufacturing. Pufferfish supports all common modes of ventilation including both volume and pressure control modes, with component cost of the system to be around 500. *We will discuss control strategies for pneumatic circuit utilized. More broadly, we will discuss the context of the project. See [pezglobo.org](https://pezglobo.org) for details.*

<sup>1</sup>PezGlobo is an inter-university partnership between Stanford University, Brown University and University of Utah with industrial partners across the globe including Waymo, Blackrock Microsystems and Bharat Forge.

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