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Weyl-Majorana solenoid MAXIM BREITKREIZ, PAUL BAIREUTHER, Instituut-Lorentz, Universiteit Leiden, P.O. Box 9506, 2300 RA Leiden, The Netherlands, JAKUB TWORZYDLO, Institute of Theoretical Physics, Faculty of Physics, University of Warsaw, ul. Pasteura 5, 02-093 Warszawa, Poland, INANC ADAGIDELI, Faculty of Engineering and Natural Sciences, Sabanci University, Orhanli-Tuzla, 34956, Istanbul, Turkey, CARLO W. J. BEENAKKER, Instituut-Lorentz, Universiteit Leiden, P.O. Box 9506, 2300 RA Leiden, The Netherlands — We investigate what happens to a Weyl semimetal wire that is covered with a superconductor. Coupling to the superconductor breaks up the Fermi arcs into pairs of Majorana modes, separated by an energy gap. Upon variation of the coupling strength along the wire there is a gap inversion that traps the Majorana fermions.

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