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Mark Mixer* (mixerm@wit.edu), **Gabe Cunningham** and **Gordon Williams**. *Computing with 2-orbit polyhedra*. Preliminary report.

Necessary and sufficient conditions for a group to be the automorphism group of a two-orbit polyhedron were described by Hubard in 2010. Utilizing the LowIndexNormalSubgroups function in MAGMA, all such automorphism groups with fewer than 500 elements have been computed. From these automorphism groups, the connection groups of all associated polyhedra can be found. With these data, we explore the 2-orbit polyhedra with fewer than 1000 flags using a computational package being developed in GAP. (Received January 25, 2022)