

Polyhedron	Rotation group	Symmetry group	Symmetry
Regular tetrahedron	T	T_d	$\{D_2, S_4\}$
Regular octahedron	O	O_h	$\{D_3, S_6\}$
Cube	O	O_h	$\{D_4, D_{2h}, D_{2v}, C_{4h}, S_4\}$
Regular dodecahedron	I	I_h	$\{D_5, D_2, S_{10}\}$
Regular icosahedron	I	I_h	$\{T, D_3, S_6\}$