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Prince Rupert's Cube is the largest cube that can pass through the inside of a unit cube. Its side length is  $\frac{3\sqrt{2}}{4}$ , as found over two hundred years ago by Pieter Nieuwland. Finding Prince Rupert's Cube is equivalent to finding the largest square that lies completely inside a unit cube. Therefore, a generalization of Prince Rupert's Cube problem in higher dimensions is to find the largest  $m$ -dimensional hypercube that fits completely inside an  $n$ -dimensional unit hypercube, where  $m < n$ . We will present some preliminary results by converting the question into a constrained optimization problem. (Received September 25, 2018)