

## MINOR PROJECT PROPOSAL

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Our primary goal is to develop a comprehension of the mathematical basis of physics for a zero angular momentum rotations. We will utilize “Falling Cats, Parallel Parking, and Polarized Light”, and “Falling cat robot lands on its feet” for the development of the mathematical background. Then once that has been developed, our goal is to construct a physical representation of this in the form of a mechanism that will preform this type of rotation. The paper “Angular Momentum Conservation and the Cat Twist” by John Ronald Galli gives a simple mechanical demonstration of the rotation, so we could mimic this construction or develop our own simple mechanical demonstration. Having an understanding of the mathematics, this minor project could be extended to a more in depth major project such as a simulation or a complex robot that can preform these rotations.