



## Attitude Sensing and Control of a Stratosphere Balloon Platform

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The objective of this project is to design and construct an attitude control platform that is suitable for high altitude stratospheric flight using a helium-filled latex balloon. An intended payload will be a microwave source that calibrates a ground based telescope by rotating the platform to the appropriate attitude. The design choices presented involve the use of an inertial measurement unit to determine the attitude and reaction wheels to rotate the platform. A Kalman filter will be used to smooth out the attitude readings and a PID controller will be used to control the platform.