AMUSE 2022 Project Progression Guide

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Minimum Expected Return

- Get a light curve/describe the flux from the asteroid at different observation points at different times in a system of multiple planetary bodies and central star(s).
- Implement the Yarkovsky effect and compare Yarkovsky and non-Yarkovsky light curves.

Additional Functionality (Part 1)

- Tesselate asteroids into small morphed-square patches with own properties (temperature, albedo etc.)
- Implement the YORP effect.
- Disentangle the distance and shape-based effects on the asteroid light curve.

Additional Functionality (Part 2)

- Implement observationally accurate albedo.
- Create non-spherical asteroids (complicated spheroids or ellipticals).