| Science / Technology Goals | Science / Technology Objectives | Measurement Requirements | | Instrument Requirements | | Projected Performance | Mission Requirement (Top |
|---|--|--|--|----------------------------|--------------------|--------------------------|---|
| | | Physical Parameters | Observables | | | | Level) |
| Discover and study planets around stars | Determine nearby exoplanet's key information | Radius Semi-Major axis of the orbit | decreases of | Brightness | Magnitude <= 13 | Magnitude <= 11 | Using GNC to point cameras to different stars Stability of cameras while observation Prevent cameras from pointing directly towards out Sun Set of 2 fast cameras for bright stars, color requirements, and fine guidance and Navigation |
| | Determine planets and planetary systems history | Radii of exoplanets of similar composition | | | | | |
| Identify planets that could harbor life | Determine the presence of water on exoplanets | Albedo | Change in the periodic decreases of brightness over time for the same planet | Brightness | Magnitude <= 13 | Magnitude <= 11 | |

| Identify Earth- like planets | Radius | Periodic decreases of brightness over | Brightness | Magnitude <= 13 | Magnitude <= 11 | |
|---------------------------------|--------|---|------------|--------------------|-----------------|--|
| | | time | | | | |
| | Mass | | | | | |
| | | | | | | |
| | | | | | | |

Magnitude <11 means that it will be able to detect exoplanets crossing stars of magnitude less than or equal to 11 (lower magnitude means brighter star).