A data-acquisition robot for acoustic sensing & localization (Robot Audition)

The project's main objective is robust and precise sound source localization and tracking (using an 8-channel microphone array).

- Designed an all-terrain robot that can traverse bumpy and uneven terrain for long-term autonomy without any human intervention.
- The height of the microphone array is adjustable up to 1.7m. Communication is using the 4G protocol, and an HDD is present onboard for live data storage, which is streaming from the state estimation and other sensors.
- Hardware (body, design) + Software (controls, planning, navigation, communication) stack were both done by me.