

Dear GAIA Competitors,

Thank you all so much for choosing to be a part of this year's GAIA competition, we sincerely appreciate your efforts! We are excited to be partnering with [World Bicycle Relief](#) for the 2024-2025 GAIA competition. World Bicycle Relief, engineers and distributes a purpose built bike made for, rural African climates. Before the problem statement is released, and you all begin work on your design projects, we have a few resources that we recommend all teams read to familiarize themselves with bicycle design.

<https://tinyurl.com/GaiaResources2024-25>

In addition to the above bicycle specific information, we recommend team members have some understanding of the following domains:

- Statics (stress-strain, beam bending, etc.)
- Electronics testing equipment
- Sensors for measuring force, such as load cells and strain gauges
- Measurement and instrumentation (sampling, noise, uncertainty, filtering)

Said information is also included in the technical resources' spreadsheet, and while we consider it supplemental, it is fundamental for this year's competition.

With respect to technical skills, ideally teams are expected to develop an understanding of CAD, and some basic electrical and mechanical skills (3D printing, soldering, crimping etc.). Teams are recommended to have some access to a 3D printer and/or laser cutter, but we do not expect too much benefit from significantly more complex machinery.

We recommend that all teams purchase some bike to test their accessory suite on (any adult sized road bike will do). At the actual competition, teams will be provided with a WBR bicycle to attach their components to, and all final prototypes should be made to attach to a WBR bicycle.

All relevant CAD files / drawings will be included on the technical resources sheet, and any updates to the technical resources spreadsheet will be posted on slack. We recommend that you join the slack (linked below) and bookmark the technical resources spreadsheet (linked above) as they will be your go-tos for any questions you may have throughout the competition.

[https://join.slack.com/t/gaiacompetitors/shared\\_invite/zt-2vt02d0yo-R3JA\\_QiJXWfOFCFn3udmww](https://join.slack.com/t/gaiacompetitors/shared_invite/zt-2vt02d0yo-R3JA_QiJXWfOFCFn3udmww)

We expect to release the initial problem statement by the end of the month, and will release revisions, bringing more details, throughout January. We cannot wait to see the solutions you all develop, and encourage you to remember the impact and importance of your contributions. Once again, thank you so much for devoting your time to the GAIA competition.

Best,  
GAIA Organizers Technical team