

2021 Asia High Schools iGEM Joint Collaboration Network

Korea_HS and ASIJ_Tokyo have proposed the formation of a joint collaboration network between high school teams in the Asia region. We would like to invite all interested teams to join this network and the following document contains details regarding the collaboration network and its details.

Inspiration

With the majority of teams participating in iGEM being collegiate teams, it is often difficult for high school teams to find collaboration or discussion opportunities due to the large level gap between HS and college teams. Despite the wonderful advice that collegiate teams can provide to HS teams, it is also very important to interact with teams at our age level as we often think the same way!

In addition, both our teams want to break the barrier iGEM teams have about collaboration. Through our network, we want to make something bigger and more impactful than just a few superficial meetings!

After discussing the common problems experienced by both teams, Korea_HS and ASIJ_Tokyo have come up with the idea of forming the joint collaboration network which will aim to address the following 5 points.

- 1) Providing a space for high schoolers to interact and work with each other.
- 2) Allowing for high school teams to help troubleshoot each other's projects with expertise from each team.
- 3) Giving high school teams a voice in the iGEM community and a chance to display excellence.
- 4) Preparing new teams for the jamboree with already established networks.
- 5) Setting a framework for future high school teams with the valuable information we learn from the competition season.

Each of the teams in the region have strong skills that are invaluable towards success at the iGEM Jamboree. By sharing our talents and resources, all teams will be able to thrive and benefit from each other.

Eligibility

As inclusivity is very important in the scientific world, we believe that every person and every team should have the ability to share their project ideas and receive help from it.

Therefore, we will not exclude teams based on the experience we have. We welcome first year teams who have just joined iGEM but also teams with experience participating in the jamboree and have won multiple awards in the past. We hope for this joint collaboration to encompass various perspectives and standpoints!

The only criteria we will set is that teams must be competing in the **high school** track and be from the **Asia** region. Please contact either team if you have concerns regarding the eligibility criteria.

Collaboration Network Framework

Both Korea_HS and ASIJ_Tokyo have planned a framework for how the collaboration network will be structured. However, depending on subsequent meetings, the framework is subject to change and we are open to any form of feedback!

First Meeting: Team Presentations

In 20 minutes, all interested teams will pitch a presentation on their project idea and current status and be offered feedback from the other participating teams.

We want this to be more than a regular “meetup” or “call”, so we will ask all participating teams to do the following

- List one thing that your team is strong at and can help other teams with
 - Example: ASIJ_Tokyo has contacts in protein modeling and can help assist teams who need help on how to model certain protein structures.
- List one thing that your team is currently lacking at and can receive help with.
 - Example: ASIJ_Tokyo works in a high school classroom and is thinking of ways to do simple lab experiments with our project that can still fit with medal requirements.
- What is your team's goal in terms of medal requirements and special track awards?
 - Example: Korea_HS is shooting for a gold medal and trying to get nominated/win one special track award.
- What is one medal requirement that you are struggling with/currently working on?
 - Example: ASIJ_Tokyo is currently working on the engineering part of Silver Medal Criteria #1 and is struggling to see how their work fits the design cycle.

Second Meeting: Team Exchange

Leaders from Korea_HS and ASIJ_Tokyo will take detailed notes from the team presentations regarding the four things that we ask of each team.

Based on the information provided from the four requirements, we will pair teams up with each other based on their strengths and weaknesses and prior collaboration experience. The second meeting will consist of breaking up into small groups(of 2-3).

For example, Korea_HS is strong at wet lab but needs assistance on modeling while ASIJ_Tokyo is strong at modeling but needs assistance on wet lab. In this case, we would pair the two teams together during this second meeting.

We will let teams meet for 1 hour before asking teams to make a plan of the following

- Come up with a plan of how the teams in your group can help each other.
- Be ready to present how your team has helped another team by the next meeting.
- Be ready to present how your team has received help from other teams by the next meeting.

After the first and second meetings, subsequent meetings will consist of big group meetings where teams will update the whole group about their overall progress and small group meetings where teams will continue to work closely with each other.

As we near the Jamboree, we are planning to have sessions where we will share things like our presentation video(if the video format will still be used and Wiki with each other before the final wiki Freeze submission deadline. This will serve as a platform for feedback. With the expertise of the teams in this network, teams who join this network should get great advice and make amazing progress!

Education and Outreach

We have presented about the collaboration and troubleshooting aspect of the network, but both Korea_HS and ASIJ_Tokyo have also discussed how we can use the expertise of different teams from Asia to inspire others in the field of science and synthetic biology.

Going back to our five points of inclusivity and promoting synthetic biology, we will also create the Asia High School Collaboration Network Youtube Channel.

While it is not mandatory for teams who participate in the collaboration network to contribute to the Youtube Channel, we strongly encourage teams to help with this and it can be really beneficial to the Education special track award and the overall impact of each team's project.

We will present more about the Youtube channel during the first meeting but we will have teams making the following videos.

- A video explaining the area of focus of each team's project for the 2021 season and its importance towards our society.
 - The ASIJ_Tokyo team made a video on Type 2 Diabetes in 2019 as an example:
<https://drive.google.com/file/d/1V431nAuM0v4hlUs21FoqaITL-P2zXVXP/view?usp=sharing>
- A video explaining key/basic concepts of synthetic biology for future high school teams and those interested in pursuing synthetic biology.
- A video explaining advice/tips for future iGEM high school teams in the Asia region so that they can get a headstart.
 - The ASIJ_Tokyo team made a course on math modeling in 2019 as an example:
<https://www.udemy.com/course/mmforigem/>

The Youtube channel will be narrated in multiple languages(or at least translated) and will be spread to high schools and future teams for the next year to further their passion towards synthetic biology.

Contact

For teams that are interested in joining the network, please contact either ASIJ_Tokyo or Korea_HS. We will add you to the list of interested teams and send our subsequent information via Instagram DM or Email.

ASIJ_Tokyo Contact: <https://linktr.ee/igemasijtokyo>

Korea_HS Contact:

Instagram (@igem2021_koreahs)

Email (koreahsigem2021@gmail.com)

We look forward to your participation and meeting the variety of teams that are interested. If you are a collegiate team and know of any high school teams that are interested in this opportunity, please forward this document to them!

[Registration Link](#)