East Asia and Pacific Summer Institutes (EAPSI)

Program for U.S. Graduate Students in Science and Engineering

Informational Webinar

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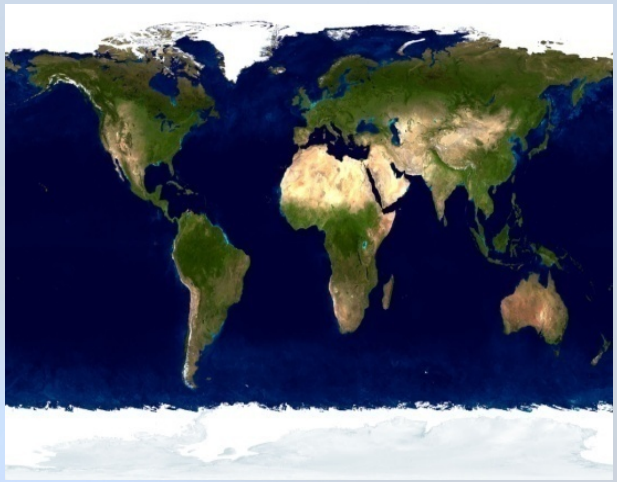
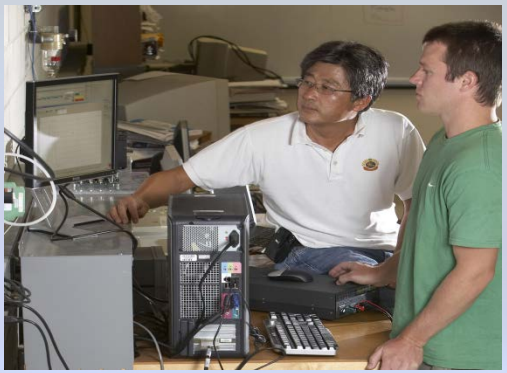
Program Goals

- ✓ Introduce students to research in science and engineering in the East Asia-Pacific region



- ✓ Help foster student-initiated professional relationships that facilitate future international research collaborations



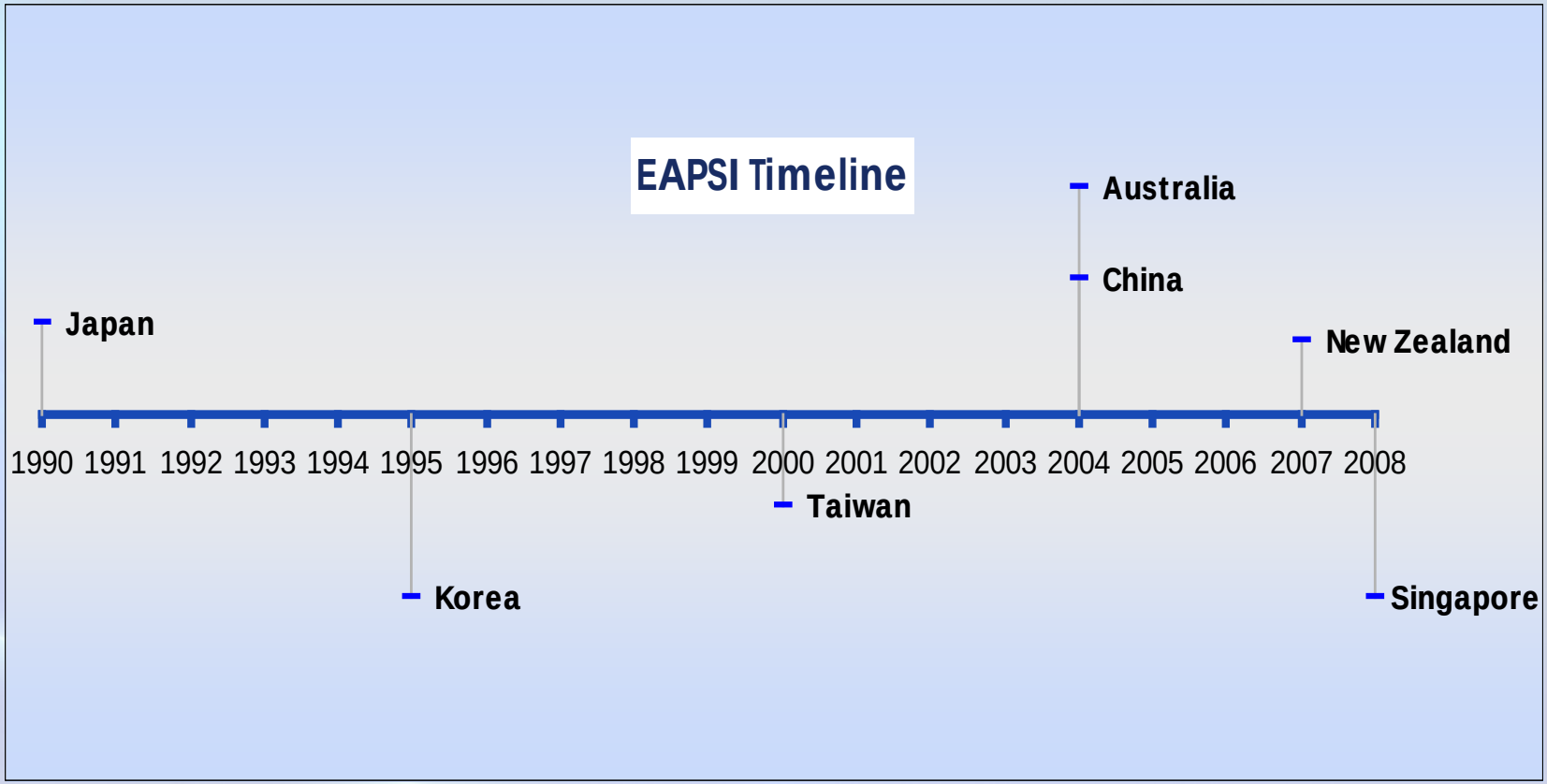
EAPSI enables U.S. graduate students to…

- Advance their research through international collaborations
- Gain professional experience early in their careers in Australia, China, Japan, Korea, New Zealand, Singapore or Taiwan for 8-10 weeks

Foreign Partners

- Australian Academy of Science
- Chinese Ministry of Science & Technology
- Chinese Academy of Sciences
- National Natural Science Foundation of China
- Japan Society for the Promotion of Science
- National Research Foundation of Korea
- Royal Society of New Zealand
- National Research Foundation of Singapore
- Ministry of Science and Technology (Taiwan)

EAPSI Historical Timeline



Award Benefits

8-10 week research program in host institution

NSF Contributions

- Pre-Departure Orientation in Washington, D.C. in April (mandatory; airfare, lodging, meals covered)
- $5,000 summer stipend
- Roundtrip air fare to host location

Foreign Co-Sponsors Contributions

- In-country opening and closing activities
- In-country culture orientation
- In-country living expenses (housing & meals)

Additional Benefits

- Network with other awardees
- Get new ideas for your research
- Access to cutting-edge facilities and regional expertise
- Mentoring by top researchers in the EAP region
- Site and professional visits at host location

The Nuts and Bolts:

Is EAPSI right for me?

Eligibility

- U.S. citizen or permanent resident (“green card” holder)
- Enrolled in a research-oriented master's or Ph.D. degree program (including joint degree programs)
- Students enrolled in joint Bachelor/Master's programs must have graduated from the undergraduate degree
- Enrolled at a U.S. institution located in the United States
- Field of study in science, engineering, or education research
- Applicants identify and contact host researchers on their own, prior to submitting their EAPSI proposal; lists of prospective host institutions are available at the end of each Handbook.

Is My Field Supported by NSF?

EAPSI Fellows can conduct research in any field of science and engineering supported by NSF.

- Engineering (ENG)
- Computer and Information Science and Engineering (CISE)
- Mathematical and Physical Sciences (MPS), i.e., Mathematics, Physics, Chemistry, Astronomy, Materials Research
- Biological Sciences (BIO)
- Geosciences (GEO)
- Social, Behavioral, and Economic Sciences (SBE)
- STEM Education
- Multidisciplinary Research in the eligible fields.

Questions? Contact the EAPSI Program.

Areas NOT Supported by NSF

- Fine Arts and Humanities
- Law and Business
- Medical (Clinical), Dental, Veterinary, Pharmaceutical

See Grant Proposal Guide (GPG), Chapter I, NSF Programs and Funding Opportunities:
http://www.nsf.gov/publications/pub_summ.jsp?ods_key=gpg

NSF does not normally support technical assistance, pilot plant efforts, research requiring security classification, the development of products for commercial marketing, or market research for a particular project or invention.

Research with disease-related goals, including work on the etiology, diagnosis or treatment of physical or mental disease, abnormality, or malfunction in human beings or animals, is normally not supported. Animal models of such conditions or the development or testing of drugs or other procedures for their treatment also are not eligible for support.

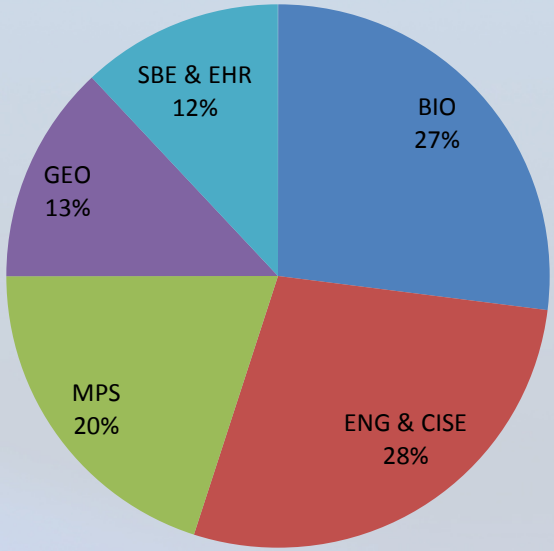
However, research in bioengineering, with diagnosis- or treatment-related goals, that applies engineering principles to problems in biology and medicine while advancing engineering knowledge is eligible for support. Bioengineering research to aid persons with disabilities also is eligible.

Success Rates

- Vary considerably by year, location
- EAPSI average usually 40-50%
- By location: Historically English speaking host locations have had the lowest success rate (highest rate of competition)
  - Australia, New Zealand
- Little variation by discipline

2015 EAPSI Fellowships by Academic Discipline (proportionate to proposal pressure)

- ENG & CISE 28%
- BIO 27%
- GEO 13%
- MPS 20%
- SBE & EHR 12%



A Few Nuances

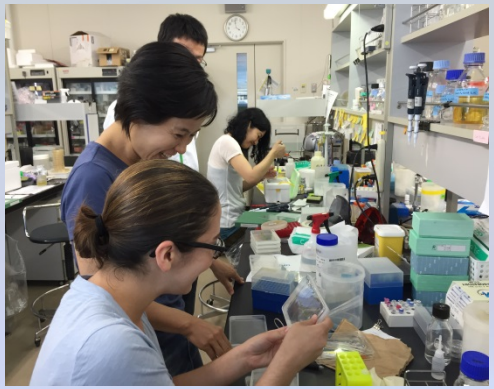
- EAPSI is a cohort program, with fixed start and end dates
- You are expected to participate in EAPSI in full, remaining in country throughout
- EAPSI supports fellows as individuals. Spouses, dependents are not supported and are not allowed to participate in EAPSI activities.

EAPSI 2016

Program announcement: NSF 13-593

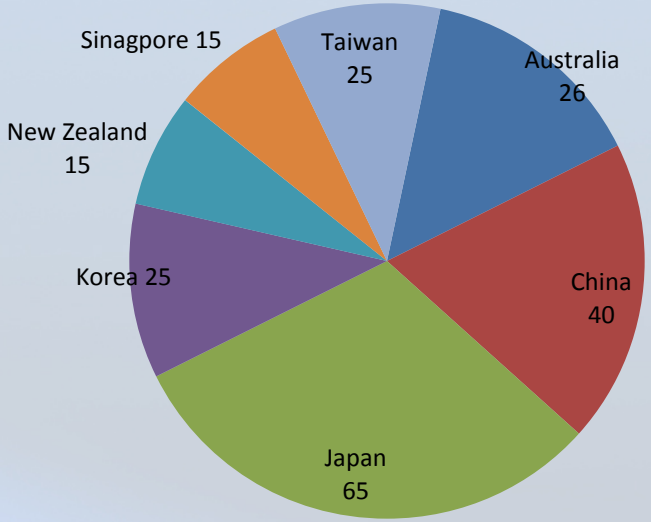
DEADLINE: Nov 12, 2015

Success factor: Read the program announcement and country handbook!



Anticipated 2016 EAPSI Fellowships by Host Location (based on positions provided by host)

- Australia 26
- China 40
- Japan 65
- Korea 25
- New Zealand 15
- Singapore 15
- Taiwan 25



Total Awards: 211

Approximate Program Cycle

- Now: Develop research plans, begin host researcher communication
- November 12, 2015: Application deadline for Summer 2016
- December-January: NSF review panels
- End February: NSF notification of tentative acceptance to students and nomination of candidates to counterpart organizations
- Early April (approximate): Pre-Departure Orientation in Washington
- June: Official NSF awards issued, students travel to East Asia
- June to August: Summer institutes
- March 2017 : NSF Final Report and Project Outcomes Report for the General Public are due

How Do I Find a Host?

- Consult your academic advisor
- Consult others in your lab, department
- Read the literature in your field
  - Authors of articles with intriguing or complementary results, methodologies, etc.
- Consult EAPSI alumni (NSF awards database http://www.nsf.gov/awardsearch/)
- Search websites of universities, research institutes in EAP

Approaching a Potential Host

- If available, a third party introduction is great…

  …but not essential

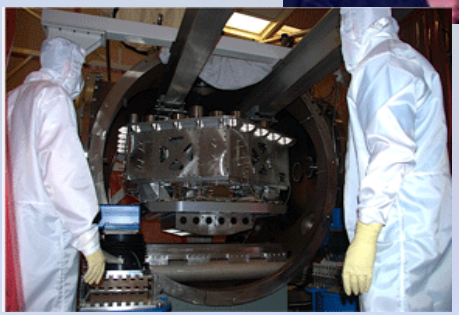
- Email the potential host:
  - Give your name, advisor/lab, institution
  - Explain that you will be applying for a U.S. National Science Foundation fellowship program, cosponsored by [Name of NSF Counterpart for that Location, see slide 4], to conduct research in Location X in Summer 2016
  - Explain your research briefly
  - Explain how you found the researcher and what your interests are
- Your may need to try a couple of times (host's email server thinks your mail is spam, host may be on travel, etc.)

Overview of Merit Review Process

- EAPSI proposals are reviewed by the same criteria as any other NSF proposal
  - Intellectual Merit
  - Broader Impact
- EAPSI-specific criteria as listed in solicitation
- In principle, panel review
  - Ad hoc review as appropriate

NSF Intellectual Merit Review Criterion

- How important is the proposed activity to advancing knowledge and understanding within its own field or across different fields?
- How well qualified is the proposer (individual or team) to conduct the project? (If appropriate, the reviewer will comment on the quality of the prior work.)
- To what extent does the proposed activity suggest and explore creative and original concepts?
- How well conceived and organized is the proposed activity?
- Is there sufficient access to resources?



Intellectual Merit

- Must be addressed in project summary *and* project description
- Some key elements of IM criterion
  - Research question/hypothesis and its significance
  - Methodology
  - Timeline
  - Your qualifications
  - Synergy with proposed work with expertise of your host
    - Why this host in this location?
    - Why do you need to go there to do the work?

NSF Broader Impacts Review Criterion

- How well does the activity advance discovery and understanding while promoting teaching, training, and learning?
- How well does the proposed activity broaden the participation of underrepresented groups (e.g., gender, ethnicity, disability, geographic, etc.)?
- To what extent will it enhance the infrastructure for research and education, such as facilities, instrumentation, networks, and partnerships?
- Will the results be disseminated broadly to enhance scientific and technological understanding?
- What may be the benefits of the proposed activity to society?

Broader Impacts

- Must be addressed in the project summary *and* the project description
- Some considerations of BI criterion
  - What will be the impact on you, your research?
  - How will your research impact the world beyond your lab (discipline, society, etc.)?
  - *What do you as PI on this federal grant plan to do to extend the impact of the investment beyond yourself and your lab?*

EAPSI-Specific Review Criteria

- Qualification of applicant, including potential for continued growth and the probable effect of participation in the Summer Institute on the applicant's career
- Resources and capabilities of the proposed host institution(s) and researcher(s), and/or the current stature of research in the student's field of interest in the chosen location
- Merit, complementarities, and expected mutual benefits of the proposed international collaboration

Post-Panel Process

- Panel recommendations are *advisory* to NSF
- Program officer recommendation based on reviewer advice, program priorities
  - Tentative notification to PIs NSF plans to recommend to our foreign counterparts (late Feb)
- NSF recommendation to foreign counterparts
- Foreign counterpart acceptance
  - Both NSF and foreign counterpart must agree for award to proceed
- NSF award recommendation
- Award/decline notification to PI from NSF Division of Grants and Agreements (~May)

Tips for Success

- Read program announcement
- Strong, well-explained research proposal
- Realistic timeline
- Thoughtful broader impacts
- Clear contribution by you as PI
  - If joining an existing collaboration, clearly articulate what your contribution will be.
- Clearly articulated rationale for choosing host

For EAPSI Alumni

- Alumni may apply to EAPSI again BUT *<u>several caveats</u>*
  - Must apply to a different location (country)
  - Must address *Results of Prior NSF Support* within your 5-page project description
  - Priority will go to those without prior EAPSI experience
    - Little chance of success in English-speaking countries, which typically have the highest proposal pressure
    - Overall chance of success contingent on proposal pressure

2nd or 3rd Choice Location

- Optional
- No host researcher information required…
- *…however*, it is difficult for reviewers to assess the feasibility of a 2nd, 3rd choice location without host information
- NSF strongly discourages choice of English-speaking countries, especially Australia and New Zealand, countries as alternate locations

A Few More Nuances

- Japan does not accept assistant professors as official hosts.
  - If your ideal mentor is an assistant professor, you should identify a more senior co-mentor
- Our China counterpart funds a narrower range of social science research than NSF.
  - Contact NSF EAPSI team if you have questions.
- Your research may require permits in host location. Consult your host.

Human Subjects or Vertebrate Animal Research

- If your research involves human or vertebrate animal subjects, NSF needs the appropriate documentation *before an award can be made*
- Human Subjects: IRB Approval or Exemption
- Vertebrate Animals:
  - IACUC Approval
  - Letter from host institution

Human Subjects Research

- NSF Policy: Grant Proposal Guide (GPG) II.D.8
  - US IRB approval or exemption required
    - Include your name, proposal ID or title, explain that work will be done internationally
  - Host location must be included in HHS/OHRP *International Compilation on Human Research Standards (*true of all locations)
  - *Optional*: Letter from host lab/institution indicating compliance with standards there

Vertebrate Animals

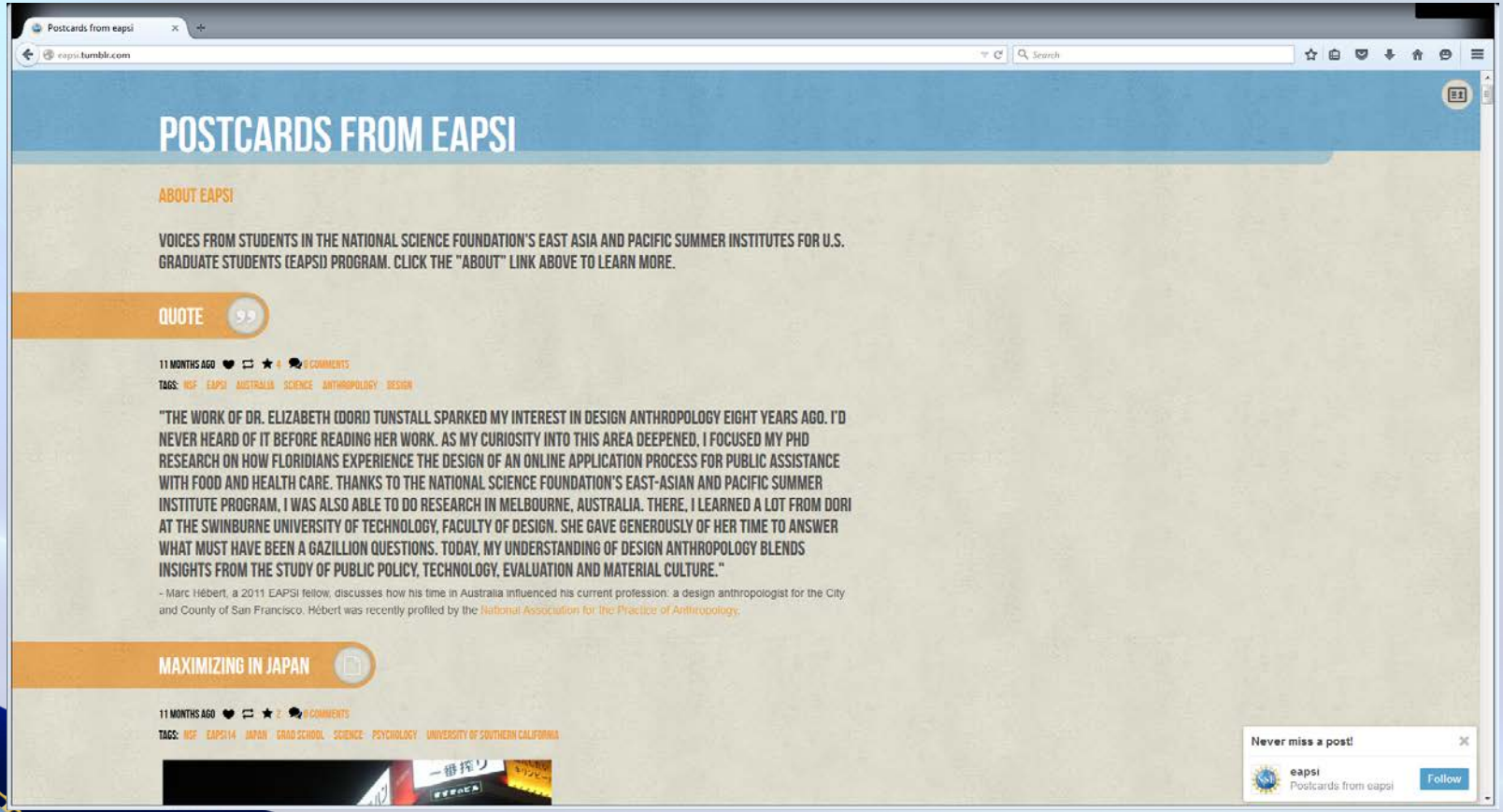
- NSF Policy: Grant Proposal Guide (GPG) II.D.7
  - IACUC approval from US institution, including
    - Your name and project title
    - Description of the international aspects of the work
  - Letter from the host institution/lab stating that
    - Research will be conducted in accordance with all applicable laws in the country AND
    - *International Guiding Principles on Biomedical Research Involving Animals* will be followed

IRB/IACUC Timing?

- IT DEPENDS…
  - Not required at the proposal stage
  - Essential for an award to be made
- Many students begin to work on IRB, IACUC approvals after tentative award notification from NSF (Feb-Mar), but…
  - Some IRBs/IACUCs work slowly
  - Some add requirements beyond NSF's
  - Best to check well in advance

Tumblr: Postcards from EAPSI

http://eapsi.tumblr.com



Questions?

Program Solicitation, Online Application and Deadlines:
http://www.nsf.gov/eapsi

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