**INSTRUCTIONS TO COMPLETE THE APPLICATION FORM**

Fill each and every section of this document with as much detail as you can, following the instructions given.

1. Please prepare the HyperGES Mission Application Form in accordance with the instruction and guidelines given in this template.
2. Make the descriptions in the documents specific and comprehensive utilizing charts and tables. Reference in the text all charts, figures and tables used.
3. The template has two type of fields to be filled in:
* Mandatory: mandatory fields are marked with the following code [M]
* Optional: optional fields (or fields that are not applicable to all applications) are marked with the following code [O], **however if the information is applicable to your application, then the information becomes mandatory**.

Please include your text in the boxes to that effect.

1. When necessary, sections and subsections will contain a description of their expected content. Descriptions are marked with the code [DESCRIPTION]. Please use any graphic material such as diagrams when you deem them necessary to clarify or express a concept or a design.
2. Write “TBD” (to be determined) when information is not yet available on an item.
3. Using the provided MS-Word templates is mandatory. The application should follow the following general format:
	1. Size of paper: A4
	2. Margins: 20 mm from the edge
	3. Page number: 15 mm from the bottom edge
	4. Font and size: Times New Roman 10-12 points
	5. The application should be submitted in .pdf, and text in the pdf file shall be selectable
4. Please do not include this page in your application

**IMPORTANT: The application is only considered valid if all the information requested by the Announcement of Opportunity is provided.**

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# BASIC INFORMATION [M]

**Status of your organization(s)** (using “X” as appropriate):

[ ] Research institutions [ ] Universities [ ] Other public institutions

## Project title: [M]

|  |
| --- |
| TITLE OF THE PROJECT HERE |

## Executive Summary: (no more than 150 words) [M]

|  |
| --- |
| EXECUTIVE SUMMARY HERE |

## Certificate [M]

By signing this application, I confirmed that all statements in our application are true, correct and complete. Once selected, our organizations(s) will comply with the Terms and Conditions stipulated in the Announcement of Opportunity:

**Issued by the Project Coordinator (PC):**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |
| Name of PC in print |  | Signature of PC |  | Place |  | Date (dd-mm-yyyy) |

**Approved by applying organization 1:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
| (Signature of head of organization 1) |  | Place |  | Date (dd-mm-yyyy) |

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(Full name and title of head of applying organization 1 in print) (Seal of organization 1)

**Approved by applying organization 2 (if applicable, and extend this section as needed for more organizations):**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
| (Signature of head of organization 2) |  | Place |  | Date (dd-mm-yyyy) |

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(Full name and title of head of applying organization 2 in print) (Seal of organization 2)

## Head of Applying Organization information [M]

([DESCRIPTION] Please note that all applying organizations must be eligible, as specified in section 12. of the Announcement of Opportunity. Repeat this section as necessary in case several applying organizations)

|  |  |
| --- | --- |
| Name and Surname |  |
| Gender | 1 Male 1 Female 1 Other 1 Prefer not to say |
| Age |  |
| Telephone |  |
| E-mail |  |
| Nationality |  |
| Country of Residence |  |
| Legal Name of Organization |  |
| Address of Organization |  |

# TEAM COMPOSITION

##

## Project Coordinator [M]

|  |  |
| --- | --- |
| Name and Surname |  |
| Gender | 1 Male 1 Female 1 Other 1 Prefer not to say |
| Age |  |
| Nationality |  |
| Job title |  |
| Telephone |  |
| E-mail |  |
| Nationality |  |
| Country of Residence |  |
| Legal Name of Project Coordinator’s Organization |  |
| Full Address of Project Coordinator’s Organization (including country) |  |
| List of papers published by the project coordinator in peer reviewed journals related to the topic of the proposal (if none, please insert N/A) |  |
| Experience (if none, please insert N/A) |  |
| Has the Project Coordinator been part of a winner team of other competitive process organized by UNOOSA? (e.g. DropTES, KiboCUBE, CSS,…) | [ ] Yes [ ] NoIf yes please explain: |

Mini CV:

|  |
| --- |
| YOUR TEXT HERE |

## Team Member [M]

([DESCRIPTION] Please note that all team members must belong to applying organizations that are eligible, as specified in section 12. of the Announcement of Opportunity. Repeat this section as necessary to cover all the team members)

|  |  |
| --- | --- |
| Name and Surname |  |
| Gender | 1 Male 1 Female 1 Other 1 Prefer not to say |
| Age |  |
| Nationality |  |
| Telephone |  |
| E-mail |  |
| Nationality |  |
| Country of Residence |  |
| Legal Name of Team Member’s Organization (if different from Project Coordinator’s Organization) |  |
| Full Address of Team Member’s Organization (including country) (if different from Project Coordinator’s Organization) |  |
| List of papers published by the team member in peer reviewed journals related to the topic of the proposal (if none, please insert N/A) |  |
| Experience (if none, please insert N/A) |  |
| Has the Team Member been part of a winner team of other competitive process organized by UNOOSA? (e.g. DropTES, KiboCUBE, CSS,…) | [ ] Yes [ ] NoIf “Yes” please explain: |

Mini CV:

|  |
| --- |
| YOUR TEXT HERE |

# PROPOSAL ABSTRACT [M]

([DESCRIPTION] Please insert a brief description of the proposed experiment, including, but not limited to, the following elements: the science/technology rationale, the relevance of hypergravity, the importance of utilizing the Large Diameter Centrifuge (LDC) facility, and the expected results. The abstract should concisely describe the above in a maximum of 300 words.)

|  |
| --- |
| YOUR TEXT HERE |

# MISSION OBJECTIVES, REQUIREMENTS AND CONSTRAINTS

## Research Hypothesis

([DESCRIPTION] Please include a detailed research hypothesis of your proposed experiment. Please include the background/history basis of the hypothesis and its rationale with evidence/data from (international, peer reviewed) publications and/or own observations. )

|  |
| --- |
| YOUR TEXT HERE |

## Mission Statement: Contribution to Capacity-Building [M]

([DESCRIPTION] Mission statement (one or two sentences maximum) and how conducting this experiment could contribute to building capacity in your country. Details on how to realize that contribution to be included in the communications plan and dissemination plan (section 11).)

|  |
| --- |
| YOUR TEXT HERE |

## Objectives [M]

([DESCRIPTION] Please list the objectives of the proposed experiment, please use SMART (Specific, Measurable, Achievable, Relevant, Time-bounded). Objectives can be categorized in primary (needed for the success of the experiment) and secondary (nice to achieve). Primary wiobjectives and Secondary objectives shall be numbered as PrimObj-XXX and SecObj-XXX respectively (e.g. PrimObj-001, PrimObj-002…; SecObj-001, SecObj-002,...).

|  |
| --- |
| YOUR TEXT HERE |

## Relevance to the Sustainable Development Goals [M]

([DESCRIPTION] Please insert a description of the [Sustainable Development Goals (SDGs)](https://sdgs.un.org/es/goals) that are supported by the experiment and its associated results. Please indicate how the participation in the AO and its related activities contribute to one or several Sustainable Development Goals and the expected social impact. Note that HyperGES contributes to SDG 4 “Quality Education”; SDG 8 “Decent Work and Economic Growth” and SDG 9 “Industry, Innovation and Infrastructure”)

|  |
| --- |
| YOUR TEXT HERE |

## Foreseen outcomes and deliverables [M]

([DESCRIPTION] Please insert a description of the specific outcomes of the experiment. It should concisely describe the above in a maximum of 150 words.)

|  |
| --- |
| YOUR TEXT HERE |

## Novelty, Uniqueness and Possible Evolutions [M]

([DESCRIPTION] Relevance of hypergravity and versatility of the experiment, progressiveness and possible evolution of the experiment with comprehensive descriptions. It should concisely describe the above in a maximum of 150 words.)

|  |
| --- |
| YOUR TEXT HERE |

## Description of Cooperation [O]

([DESCRIPTION] If it is a joint proposal from several entities, please describe the role and responsibilities of each one)

|  |
| --- |
| YOUR TEXT HERE |

## Work Breakdown Structure [M]

([DESCRIPTION] Include the Work Breakdown Structure for the development, testing and all other phases of the experiment. In case of partnerships please indicate the share of the work among the partners/team members for the different work packages)

|  |
| --- |
| YOUR TEXT HERE |

## Requirements

### Mission Requirements [M]

([DESCRIPTION] Please insert at least a requirement for each variable that will be measured in the experiment. Requirements shall be numbered in a sequential manner in increments of 10 (e.g. Sci-10, Sci-20, Sci-30…)).

|  |
| --- |
| YOUR TEXT HERE |

### Design Requirements [M]

([DESCRIPTION] Please describe the outline and insert a list of the design requirements. Note that the design has to be compatible with what is stated in [the LDC Experimenter User Manual (14 May 2019 version)](https://esamultimedia.esa.int/docs/edu/LDC_Experimenter_User_manual_V.3_Rev.0_14-May-2019_ESA-TECMMG-MAN-014129.pdf) and [website on Technical constraints](https://www.esa.int/Education/Spin_Your_Thesis/Technical_constraints). Requirements and constrains shall be numbered in a sequential manner in increments of 10 (e.g. Des-10, Des-20, Des-30…)).

|  |
| --- |
| YOUR TEXT HERE |

### Operational Requirements [M]

([DESCRIPTION] Include relevant operational requirements that will be needed to perform your experiment from [the LDC Experimenter User Manual (14 May 2019 version)](https://esamultimedia.esa.int/docs/edu/LDC_Experimenter_User_manual_V.3_Rev.0_14-May-2019_ESA-TECMMG-MAN-014129.pdf). Requirements shall be numbered in a sequential manner in increments of 10 (e.g. Ope-10, Ope-20, Ope-30…)).

|  |
| --- |
| YOUR TEXT HERE |

# EXPERIMENT SPECIFICATIONS AND DETAILED DESCRIPTION

## Preliminary Setup and Overall System

## Main Estimated Specifications [M]

([DESCRIPTION] you can use graphs and tables for some items such as **Table 5.1** provided **as example**):

**Table 5.1.** Experiment main specifications

|  |  |  |
| --- | --- | --- |
| **Parameter** | **Values** | **Units** |
| Mass |  | kg |
| Dimensions |  | mm |
| Dimensions (deployed: in case dimensions if change during the experiment) |  | mm |

|  |
| --- |
| YOUR TEXT HERE |

### Technical Drawings [O]

([DESCRIPTION]: Interface drawings, front-view, side view, bird’s view and deployed configuration)

|  |
| --- |
| YOUR TEXT HERE |

### External Dimensions [O]

([DESCRIPTION]: The size of any protruding objects should be also indicated, if any)

|  |
| --- |
| YOUR TEXT HERE |

## System Block Diagram [M]

([DESCRIPTION]: Including all subsystems and how they are related to the variables to be measured)

|  |
| --- |
| YOUR TEXT HERE |

# ASSEMBLY, INTEGRATION AND TESTING

1.

## Facilities

### Description of the assembly facilities [M]

([DESCRIPTION] Please describe the facilities that can be accessed for the assembly of the experiment equipment. In case the facilities do not belong to the institution submitting the application, please also include a letter from other institution(s) authorizing the use of their facilities).

|  |
| --- |
| YOUR TEXT HERE |

### Description of the testing facilities [M]

([DESCRIPTION] Please describe the facilities that can be accessed for the testing of the experiment equipment. In case the facilities do not belong to the institution submitting the application, please also include a letter from other institution(s) authorizing the use of their facilities).

|  |
| --- |
| YOUR TEXT HERE |

## Verification [M]

([DESCRIPTION] Please provide the verification plan, matching each of the requirements with a verification method and when applicable, indicate test case).

### Verification Plan for Mission Requirements [M]

|  |
| --- |
| YOUR TEXT HERE |

### Verification Plan for Design Requirements [M]

|  |
| --- |
| YOUR TEXT HERE |

### Verification Plan for Operational Requirements [M]

|  |
| --- |
| YOUR TEXT HERE |

# SCHEDULE

1.

## Development schedule [M]

([DESCRIPTION] Please provide a schedule of the development phases of your experiment, including milestones and pass/fail criteria for each one. Include each of the workpackages and allocation of each team member to each one. A Gantt chart and its description shall be included).

|  |
| --- |
| YOUR TEXT HERE |

## Experiment schedule [M]

([DESCRIPTION] Although at this stage it might be difficult to provide a complete schedule for the experiment schedule, please provide as much detail about the schedule as possible (e.g. initial system checkout phase, payload activation phase, preparation time between expriments....), A Gantt chart and its description, including launch preparation, launch activities and post-launch activities shall be included).

|  |
| --- |
| YOUR TEXT HERE |

# BUDGET

1.

## Cost [M]

([DESCRIPTION] Please provide information of the cost, including the price of the parts, personnel costs, facilities costs, operation costs, travel expenses, shipment of the experiment equipment, dissemination activities…).

|  |
| --- |
| YOUR TEXT HERE |

## Secured budget and budget plan [M]

([DESCRIPTION] Please provide information of the secured budget (budget that is committed) and letters of commitment specifying the funding source, and information on what are the envisaged funding sources of any remaining non secured budget.).

|  |
| --- |
| YOUR TEXT HERE |

#

# TRANSPORTATION TO AND FROM THE NETHERLANDS[M]

([DESCRIPTION] Please provide information concerning the transport, customs arrangements,..).

|  |
| --- |
| YOUR TEXT HERE |

# FEASIBILITY AND RISK ANALYSIS

1.
2.

## Feasibility analysis [M]

([DESCRIPTION] Provide arguments on the feasibility of your project in its technical specifications and research contents, including research and technical base, maturity of the project, availability of necessary resources on the ground, and technical conditions that could be capitalized on.)

|  |
| --- |
| YOUR TEXT HERE |

## Risk analysis [M]

([DESCRIPTION] Provide a description of the risks that you might face (e.g. mechanical, chemical, thermal, biological radiation etc.), their likelihood (1 (not likely) 3 (very likely) and impact (1 (minor impact) to 3 (catastrophic)) and mitigation actions for each of them)

|  |
| --- |
| YOUR TEXT HERE |

# COMMUNICATIONS AND DISSEMINATION PLAN [M]

([DESCRIPTION] Provide the plan (e.g. scope, schedule, resources, means) that will be used to promote the opportunity and the results. Particular attention should be given to initiatives inside the applicant country(ies))

|  |
| --- |
| YOUR TEXT HERE |

# SUPPORTING DOCUMENTS [M]

([DESCRIPTION] List here any documents in support of your application (e.g. support letters, CVs,…), including document number, document name, authors and organizations, publication and volume, date, etc. Please attach those documents as separate pdf files (they could be scan copies of originals if needed)).

|  |
| --- |
| YOUR TEXT HERE |

# ABBREVIATIONS AND REFERENCES [M]

([DESCRIPTION] List here any abbreviations used across the document and references of documentation you have used to create your application (including document number, document name, authors and organizations, publication and volume, date, etc.)]

|  |
| --- |
| YOUR TEXT HERE |