

HR001126S0008 AutoDIDACTS
Frequently Asked Questions (FAQs)
as of 4/8/2026

36Q: Do I need to include an Official Transmittal Letter from an authorized organizational representative in the abstract?

36A: No, a letter is not required. Please review Attachment B Abstract Instructions and Template for full set of instructions on the abstract.

35Q: Are data-driven projection-based models for solving approximate Navier Stokes equations out of scope or would they be considered surrogate models in the context of this BAA?

35A: Microscopic turbulence closure models and techniques for Navier-Stokes computation of turbulent fluids are out of scope of this effort since they do not directly lead to macroscale design principles and paradigms. Please refer to the BAA and the Proposers Day slides for topics that are within the scope of this program, and topics that are not within the scope of this program.

34Q: Are foreign institutions eligible to participate in this program? Do they need to include U.S. teammates or citizens in their teams?

34A: Foreign institutions and citizens are eligible to participate in AutoDIDACTS. There is no requirement on inclusion of U.S. institutions or citizens in the proposal team. Please refer to the BAA Section IV for the complete description “Non-U.S. organizations and/or individuals may participate to the extent that such participants comply with any necessary nondisclosure agreements, security regulations, export control laws, and other governing statutes applicable under the circumstances.”

33Q: Is it necessary for teams to include a member who specializes in design?

33A: Please refer to Slide 20 of the program overview slides from Proposers Day: Design and development teams in the selected challenge problem topics may be included in Phase I teaming arrangements if such expertise will inform the data acquisition and modeling efforts. Proposals should clarify the roles of such teams during the proposed Phase I efforts.

-----↑↑↑New Q/A↑↑↑-----

32Q: Do formal teaming arrangements have to be finalized at the abstract stage? Or can one state the potential team members in the abstract?

32A: It would be ideal for teaming arrangements to be formalized by the abstract stage. If this is not possible, the abstract should state the potential team members and possible risk mitigation plans in case the tentative teaming arrangement does not materialize.

31Q: Do performers have to work on development of both surrogate models and design principles? Does DARPA have a preference between the two choices?

31A: Per Section C of the BAA, “. Proposers may orient their efforts in Phase I of this program either towards (1) the development of macroscale design principles...or (2) the development of predictive surrogate models...” DARPA does not prefer one option over the other. To decide which (or both) of the modeling and development work would be most aligned to the program objectives, proposers should be guided by the description of the program objectives in the BAA, and their proposed topic area for the Phase II challenge problems.

30Q: Can a proposal identify multiple challenge problems and can performers tackle more than one challenge problem in Phase II?

30A: In principle, there is no limitation on the number of potential topic areas that are addressed in Phase I. However, keeping in mind the requisite team bandwidth, data acquisition time, modeling time etc., it is preferable for teams to develop one solid and rigorous concept rather than superficial efforts on multiple topic areas.

29Q: Where should I submit my abstract if I am aiming for a cooperative agreement award?

29A: Per Attachment B Abstract Instructions and Template of the BAA, all abstracts should be submitted to DARPA’s Broad Agency Announcement Tool (BAAT). Abstracts should not be submitted to grants.gov regardless of the desired award type.

28Q: Can one propose to test a hypothesized design rule or does the design rule have to be an output of the AI/ML effort?

28A: Yes. One can propose to test a hypothesized design rule.

27Q: Are you looking for a physical demonstration and proofs-of-concept in Year 1?

27A: The demonstration at the end of Year-1 serves as a plausibility check of the proposed approach (e.g. universality) which can be verified against existing data or CFD results. This demo does not require a physical demonstration in the space of the challenge problems.

26Q: What types of parameters should be included in the data collection from the tabletop simulator?

26A: The types of parameters, the measurement variables, the data volumes, and requisite precision will all depend on the specific modeling efforts and the potential Phase II topic area that are proposed. Proposers should be guided by the language in the BAA about extant limitations of current large-scale wind tunnels (e.g. low data throughput, measurement imprecision, limitations on measurement capabilities etc.) and address how

their proposed solution overcomes these limitations to enable data-informed modeling in accordance with program objectives and metrics.

25Q: Can all team members come from a single institution?

25A: Yes.

24Q: Can you share the budget one should aim for?

24A: DARPA cannot provide this information. As mentioned during Proposer's Day, the budget and number of awards are based on the quality of the proposals being received.

23Q: What kind of agreement is necessary between the performer-discovered design principle and known design principles?

23A: The discovered design principles should asymptotically approach known principles in known regimes.

22Q: Will all teams participating in the program have access to each other's data, say in a shared repository?

22A: At present, there are no plans to have a common program repository of data – mainly due to the disparate data, conditions, and modalities of potential tabletop turbulence simulators for the different topic areas. This is something that DARPA will consider once there is a better idea of the turbulence simulator concepts that will be supported within the program.

21Q: Are new designs of combustion systems in scope of this BAA?

21A: To the extent that these designs are amenable to suitably universal insights (e.g. inlet design principles and SW/BL physics for engines in extreme environments). However, specific chemical or materials modeling efforts will not be in scope of the BAA.

20Q: What benchtop architecture should one target?

20A: There is no recommended architecture for the benchtop turbulence simulators. Proposers should be guided by the language in the BAA about extant limitations of current large-scale wind tunnels (e.g. low data throughput, measurement imprecision, limitations on measurement capabilities etc.) and address how their proposed solution overcomes these limitations so as to enable data-informed modeling.

19Q: How much control should the tabletop simulator have on the realized turbulent flow?

19A: As stated in the BAA, the Phase I metrics require the range for generalizability to span 100x in parameter space. Development of control algorithms for tabletop simulators is not the focus of this program.

18Q: Should I focus on one design or more designs?

18A: While there are no restrictions on how many designs one could target, one design is sufficient for the proposal. It should be noted that the quantity of approaches is far less relevant than the technical merit of proposed approaches in the proposal review process.

17Q: Can I include team members from potential Phase II team members as consultants in Phase I to guide the design phase?

17A: Yes

16Q: Can DARPA arrange teams or recommend team members?

16A: No.

15Q: Can one leverage computational data in the AI/ML training?

15A: As stated in the BAA, computational and numerical data can be used to augment the AI/ML training but one cannot exclusively leverage computational data.

14Q: Are designs of underwater vehicles in scope of this solicitation?

14A: Yes. Proposers are welcome to identify topic areas for challenge problems.

13Q: Are hypersonics in scope of this solicitation?

13A: Yes, hypersonics and relevant endothermic and exothermic effects are in scope.

12Q: If we do not have access to teams with expertise in tabletop quantum or classical turbulence simulators, can we still propose to this program?

12A: For reasons mentioned in the BAA including the limitations of computational data for AI/ML modeling, it is strongly encouraged that teams include components with expertise in tabletop turbulence simulators. However, if teams can present compelling arguments that they have access to a large range of experimental data relevant to their data-informed modeling efforts, and as such, will leverage such data to inform their modeling and automated discovery efforts, such proposals will also be considered.

11Q: Which category of funding (e.g. 6.1, 6.2, 6.3) will be involved?

11A: As stated in the BAA (page 19), "As of the date of publication of this solicitation, the Government expects that program goals (for Phase I) as described herein may be met by proposers intending to perform fundamental research and does not anticipate applying publication restrictions of any kind to individual awards for

fundamental research that may result from this solicitation. Notwithstanding this statement of expectation, the Government is not prohibited from considering and selecting research proposals that, while perhaps not qualifying as fundamental research under the foregoing definition, still meet the solicitation criteria for submissions. If proposals are selected for award that offer other than a fundamental research solution, the Government will either work with the proposer to modify the proposed statement of work to bring the research back into line with fundamental research or else the proposer will agree to restrictions in order to receive an award. “. Also, “Proposers should indicate in their proposal whether they believe the scope of the research included in their proposal is fundamental or not. While proposers should clearly explain the intended results of their research, the Government shall have sole discretion to determine whether the proposed research shall be considered fundamental and to select the award instrument type.”

10Q: What is a sufficient discovery in interpretable designs or design principles for meeting program goals? For example, are rules of thumb such as “aircrafts without tails are unstable” or new designs of wings with significant reduction in drag sufficient?

10A: Sufficient discoveries in interpretable designs, surrogate models, or design principles should, first and foremost, demonstrate utility for design innovation and exploration. For example, does it lead to disruptive design paradigms? Second, these models and design principles should exhibit generalizability, uncertainty quantification, and accuracy as per the Phase I metrics. Thirdly, these models and design principles should be interpretable in terms of established principles (at least in tractable regimes). Proposals will be assessed based on these attributes.

9Q: Is the data coming from the tabletop simulators computational or experimental? Can one use computational data to train the AI/ML algorithms?

9A: The data coming from the tabletop simulators must be experimental. As stated in the BAA, “While computational techniques may be used to augment such ground truth experimental data, proposed approaches of modeling and functional discovery of design principles that rely exclusively on computational data will be compromised by the fidelity, dynamic range, and implicit limitations of the computational models. As such, modeling and data-informed approaches that rely exclusively on computational data may be deemed non-conforming and removed from consideration for award.”

8Q: How selective do you expect to be in the abstract stage?

8A: The abstract state is not intended to be selective. Abstracts receive an “encouraged” or “not encouraged” feedback from the program team, but do not determine eligibility for proposal submissions. In addition, encouraged abstracts may receive detailed feedback from the program team on merits, deficiencies, and other points to consider for the

preparation of their full proposal. Proposers do not need to submit abstracts to submit full proposals and can submit full proposals even if their abstract is not encouraged.

7Q: Are you more interested in the development of a compact benchtop simulator or a prediction model?

7A: This is not a case of either/or. As stated in the BAA, we require the data used by the AI/ML modeling algorithms to be acquired by experimental tabletop turbulence simulators. As such, any macroscale design principle, surrogate model, or prediction model will necessarily require data originating from an experimental simulator. As stated in the BAA, “Modeling and data-informed approaches that rely exclusively on computational data may be deemed non-conforming and removed from consideration for award.”

6Q: What do you mean by design principles?

6A: At present, aeronautical design principles such as the Whitcomb area rule, Prandtl’s lifting line theory etc. enable early-stage feasibility analyses in limited regimes (e.g. incompressible, inviscid regimes). These principles, in their present form, do not easily extend to more complex design morphologies or to larger parameter spaces of turbulent flows. However, there are several potential approaches to modifying such principles to make them more generalizable, for example, via functional renormalization, perturbative corrections, variational approaches etc. While such generalizations are extremely challenging to perform ab initio, the AutoDIDACTS program envisions a data-informed automated discovery of more generalizable and predictive versions of the aforementioned design principles for more efficient, predictive design exploration and innovation.

5Q: Are there limitations on participation on multiple awards?

5A: No, there are no limitations on participation on multiple awards.

4Q: Are there limitations on the number of submissions for an institution?

4A: No, there are no limitations on the number of submissions for an institution. However, an institution submitting multiple proposals must provide management and staffing plan to demonstrate that there are sufficient resources to ensure the success of their efforts for AutoDIDACTS and address any potential organizational conflict of interest that may arise.

3Q: What are the length requirements for the abstract?

3A: Abstracts should not exceed a maximum of 5 pages. Please review Attachment B of the BAA for complete instructions.

2Q: The Proposer's Day presentation slides list "Modeling of non-universal design aspects or phenomenology" as out of scope. What does "non-universal" mean in this context?

2A: In its strictest definition, universality refers to a lack of sensitivity to microscopic conditions, i.e. systems with very different microscopic mechanisms display similar macroscale behavior. In this context, it can refer to modeling efforts that do not clearly inform a broader scale of applications or systems. For example, an effort focused on thermo-acoustic modeling of a particular class of high temperature materials will be out of scope unless it can be shown to inform thermo-acoustic modeling of a wider class of materials.

1Q: How can I access the Proposer's Day presentation?

1A: The slides from the information session are accessible through the program website: <https://www.darpa.mil/research/programs/autodidacts>