**ANIMAL WELFARE AND ETHICAL REVIEW BODY (AWERB)**

**Outline Application Form for research using animals that does not require a University of Warwick Home Office ASPA Project Licence Application**

The University of Warwick's Animal Welfare andEthical Review Body (AWERB) is required by the Home Office to review all applications for research involving ‘Protected animals’ as defined under the Animals (Scientific Procedures) Act 1986 that the University of Warwick is involved with (including staff, students, premises). This includes both research in the UK under the Animals (Scientific Procedures) Act 1986 (ASPA) “Licenced Research” and all other research “Unlicensed Research”.

A Home Office ASPA Project License (PEL) is required in the UK where the undertaking of experimental or other scientific procedures applied to live vertebrates and cephalopods may have the effect of causing that animal pain, suffering, distress or lasting harm.

This form is to be used for all ethics applications where the research using animals involving the University of Warwick is not covered by a Home Office ASPA Project Licence where the University of Warwick is designated for primary or additional availability on that licence, including but not limited to:

1. Licensed Research at a UK establishment that is conducted under a Home Office ASPA Project Licence that does not have the University of Warwick designated for primary or additional availability.
2. Unlicensed Research conducted at the University or elsewhere in the UK.
3. Research conducted outside the UK.  (NB this will also include both research that if it took place in the UK would require a Home Office ASPA Project Licence (Licensed Research) and Unlicensed Research.)

Only work covered by the appropriate University of Warwick Home Office ASPA Project Licence can be undertaken in University rooms or areas that are designated in the University’s ASPA Establishment Licence.

Staff and students who propose to carry out such work are requested to complete this form (expand the sections as required) with details of the proposals, in sufficient detail in layman’s language to allow the diverse Committee to understand what is being proposed.

Advice from a statistician shall be obtained as deemed necessary.  Further information may be required after an initial assessment has been made on the application.

**CONFIDENTIAL**

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| **Section 1 - Research/Project Details** | |
| Name of applicant, department, e-mail address and telephone number | Juheb Habib  Engineering  [juheb.habib@warwick.ac.uk](mailto:juheb.habib@warwick.ac.uk)  07949164992 |
| Title of research/project: | Portable LoRa radio tracker |
| Proposed dates of commencement and completion: | 01/11/2022 - 13/03/2023 |
| Location of the research/project (with website address where applicable) | University of Warwick campus |

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| Description of the purpose of the research/project, and advantages expected to be gained (max 400 words). |
| This project involves the development of a portable, LoRa radio based, GPS tracker in the style of commercial pet trackers. LoRa is a radio frequency signal modulation technique, that allows long range, low power transmission. This tracker will be designed for a cat and attached to one so that live location data can be transmitted to the pet owner in aid of allowing them to monitor live location.  This project will offer a novel alternative to existing products with its basis on LoRa radio, as none such currently exist. The ultimate aim is a tracker that has potentially more utility (to cover the full range of a roaming cat) and is cost effective (with only an upfront cost and no subscription fees) for the user, along with not being arduous for the pet to wear. |

If there are relevant Home Office Project Licences or other Ethical Approvals (internal or external), please attach evidence of these.

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| **Section 2 - Animal and Welfare Details** | |
| Numbers and species of animals involved: | One (1) domestic cat |
| Are any of the animals of a rare or threatened species? | No |
| Does the project involve using single sex animals? If yes, then please justify why only one sex can be used | No |

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| Summary of the activity to be undertaken with the animals, and anticipated impact on these animals. |
| The tracker will be attached to a specially designed jacket, collar, or harness, which will then be strapped to the cat. The cat will be allowed to roam freely outdoors, with the tracker sending location data of the cat.  The jacket and tracker will add weight to the cat's body, however this will be minimised as much as possible and will be selected and designed to be as comfortable as possible. The cat may face danger while outdoors but not to a level abnormal for an outdoor house cat. The tracker will be designed so it is not a hazard to health in according with UKCA and other relevant standards for electrical and animal products. |

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| Where the research/project is to be undertaken on premises owned by another organisation, please provide full details of that organisation’s standards of animal husbandry. |
| Click here to enter text. |

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| **Section 3 - The 3Rs** | |
| Can the research be undertaken without any living animals at all? If not explain why. [Replacement] |
| To a limited extent.  The tracker can be proven as a concept that it can send location data over a distance, however it will be limited to a static location. To fully realise the project, the tracker needs to be moving independently.  Furthermore, to angle itself as an alternative to existing products, it will need to demonstrate suitability for animal use. |

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| Where Replacement is not possible and animals have to be used, how has the number of animals involved been reduced to the absolute minimum necessary to obtain valid results? [**Reduction**] |
| Yes. Only one animal is needed for valid data. |

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| How have the procedures been refined to minimise the adverse effects? [**Refinement**] |
| After proof of concept (not involving animals), only a small number of roaming sessions (to as few as one) will be needed to prove the tracker's ability to work with a cat. This proof will be sufficient to demonstrate suitability for its intended use and position as a competitor to existing products. |

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| **Section 4 - Declarations** | |
| Signature of Applicant: | Juheb Habib |
| Date: | 31/10/2022 |

**Please forward the completed, signed form along with your amended Project License application to:**

**Secretary, Animal Welfare and Ethical Review Body (AWERB)**

**c/o Research Support Services**

**University House - Ground Floor Annexe**

**University of Warwick**

**Kirby Corner Road**

**Coventry**

**CV4 8UW**

**For circulation to the University of Warwick’s Animal Welfare and Ethical Review Body (AWERB)**