My Documents

Amendments

Create New Amendment Refresh

SUBMISSION ID	CREATED DATE TIME	CREATED BY	STATUS	DESCRIPTION	UPDATED DATE TIME	COORDIN...
No items to display.						

Submission

Submission Ref	12840
Status	Approved
Submission Coordinator	David Kendall david.kendall@northumbria.ac.uk

Name	liam.brand
Email	liam.brand@northumbria.ac.uk
Faculty	Engineering and Environment
Department	Computer and Information Sciences
Submitting As	UGT - Undergraduate Taught student
Externally Approved	☐ **Note: ONLY tick this box if your project has already received full ethical approval from an external organisation**
Module Approval	☐ *Tick this box if staff and this submission refers to an entire module.*
Module Code	CM0645 Help
Module Tutor (or Submission Coordinator)	Clifford Brown Find Help Clear

Titl... Senior Lecturer
De... Engineering and Environment
Em... clifford.brown@northumbria.ac.uk

Research Supervisor	David Kendall Find Help Clear

Titl... Senior Lecturer
De... Engineering and Environment

Em... david.kendall@northumbria.ac.uk

Named Submission Coordinator (PGT/UGT only)

david.kendall@northumbria.ac.uk

Find Help

Clear

If you are an undergraduate or postgraduate taught student please select a Named Submission Coordinator. If you are not sure who this is please contact your Module tutor or Supervisor as appropriate.

Ethical Risk Level

Low

Risk Level Conditions:

Your ethical risk is **low**. Your research should only consist of one or more of the following:
- Analysis of secondary data which has been previously published.
- Desk or lab-based research which does not involve collecting data from people (other than pilot data collected solely within the research team).

Your project proposal does not need to be reviewed by your Faculty Research Ethics Committee, however, you need to be ethically aware and ensure that you have not breached plagiarism or copyright regulations and have adequately referenced your material. It is recommended that you refer to Northumbria Research Ethics Policy.

Co-investigators

Add Edit Delete Save Refresh

NAME OF CO-INVESTIGATORS

No items to display.

G1: General Aims and Research Design (Mandatory)

Title

Title of your research project

LIDAR Robot

Outline General Aims and Research Objectives

State your research aims/questions (maximum 500 words). This should provide the theoretical context within which the work is placed, and should include an evidence-based background, justification for the research, clearly stated hypotheses (if appropriate) and creative enquiry.

Investigation into the development and effectiveness of drone utilizing LIDAR technology for SLAM purposes. Development will consist of the hardware setup and physical construction of the drone as well as implementing software allowing it to navigate and map pre-defined environments.

G2: Research Activities (Mandatory)

Please give a detailed description of your research activities

Please provide a description of the study design, methodology (e.g. quantitative, qualitative, practice based), the sampling strategy, methods of data collection (e.g. survey, interview, experiment, observation, participatory), and analysis. Do sensitive topics such as trauma, bereavement, drug use, child abuse, pornography, extremism or radicalisation inform the research? If so have these been fully addressed?

Drone construction will consist of determining appropriate components (e.g. what kind of motor will be used to power the drone) followed by actually building it.
Development of the software will begin with becoming familiar with the hardware and how to properly interface with each individual component as well as how to have the components interfacing with eachother (e.g. how do I get the LIDAR sensor to talk to the circuit board). There will also be an investigation into SLAM. The different algorithms that can be implemented in order to achieve SLAM will be investigated and which one of them I will implement onto the drone will depend on factors such as complexity, any hardware requirements I may not be able to meet and the effectiveness/accuracy of the algorithm.
No sensitive topics will be a part of this research.

G3: Research Data Management Plan (Mandatory)

Anonymising Data (mandatory)

Describe the arrangements for anonymising data and if not appropriate explain why this is and how it is covered in the informed consent obtained.

N/A

Storage Details (mandatory)

Describe the arrangements for the secure transport and storage of data collected and used during the study. You should explain what kind of storage you intend to use, e.g. cloud-based, portable hard drive, USB stick, and the protocols in place to keep the data secure.

If you have identified the requirement to collect 'Special category data', please specify any additional security arrangements you will use to keep this data secure.

Software that runs on the drone will be committed to a private GitHub repository for the convenience of version control and the safety of an online repository rather than a local physical storage medium which could be lost, corrupted or inaccessible due to location.

Retention and Disposal (mandatory)

☑ **I confirm that I will comply with the University's data retention schedule and guidance.**

Research Data Management link

Data Protection link

Records Retention Schedule link

G4: Research Project Timescale (Mandatory)

Proposed Start Date: 27/11/2018

Proposed End Date: 03/06/2019

G5: Additional Information

☐ Externally Funded

External Funder

Please give details of your 'other' funder

Agresso Reference

☐ Franchise Programme Organisation

Please give details of your franchise organisation

Type a value

☐ NHS Involvement

Please give details of any NHS involvement

Type a value

☐ Clinical Trial(s)

Please give details of any Clinical Trial(s)

Type a value

☐ Medicinal Products

Please give details of any Medicinal Product(s)

G6: File Attachments

Additional files can be uploaded e.g. consent documentation, participant information sheet, etc.

Please note: It is best practice to combine all documents into one PDF (This avoids the reviewer having to op…

Go To Attachments

G7: Health and Safety (Mandatory)

- [x] I confirm that I have read and understood the University's Health and Safety Policy.
- [x] I confirm that I have read and understood the University's requirements for the mandatory completion of risk assessments in advance of any activity involving potential physical risk.

Please tick one of the boxes below...

- [ ] There are PHYSICAL risks associated with the work and I have consulted the following approved risk assessments…

  State Risk Assessment references and titles

  Specific risk assessments, where required, have been produced, approved and submitted to the Risk Asse…

  I will take the necessary action, adhere to any identified control measures, and consult with the central Health and Safety Team where necessary to manage the risks.

- [x] I can confirm that there are no physical risks associated with this project and so no risk assessments are required.

G9: Electronic Signature (Mandatory)

- [x] I confirm my supervisor has reviewed the contents of this document
- [x] I confirm I have assessed the ethical risk level of my work correctly and answered the above sections as fully and accurately as possible.

Full Name: liam.brand

Date: 27 November 2018 14:00:56

PDF Version

Create PDF

No items to display.

Review Comments, Conditions and Outcomes

Log of any Ethical Incidents

Log New Incident

INCIDEN...	CREATED DATE TIME	CREATOR NAME	COMPLAINANT DETAILS

No items to display.

Title and Objectives (see G1)

Add Save

Reviewer A: Reviewer B:

e.g. Are the research question and/or study aims clear?

DATE	ROLE	COMMENT

No items to display.

Proposed Methodology and Analysis (see G2)

Add Save

Reviewer A: Reviewer B:

e.g. Is the design appropriate to the research question?
Are the methods of data analysis appropriate to the research question?

DATE	ROLE	COMMENT

No items to display.

Sample and Recruitment (see M1)

Add Save

Reviewer A: Reviewer B:

e.g. Is the sampling approach appropriate to the design?
Is the sample sufficient and achievable?
Is the process of recruitment clearly explained?
Are participants receiving payments for taking part, and if so is the payment appropriate?
If the DBS is ticked, has the appropriate information been included?

DATE	ROLE	COMMENT

No items to display.

Consent (see M1)

Add Save

Reviewer A: **Reviewer B:**

e.g. Is the approach to consent seeking clear?
Is consent from parents/ carers/ guardians required?
Are all necessary recruitment and informed consent documentation included (e.g. letters of permission, letters of invitation)
Is the information sheet adequate to ensure informed consent?
Are the consent form(s) appropriate?

DATE	ROLE	COMMENT

No items to display.

Researcher and Participant Safety (see M1)

Add Save

Reviewer A: **Reviewer B:**

e.g. Is there any risk of physical harm for the researcher(s) or the participants and if so what attempts have been made to alleviate or minimise them?
Have Risk Assessments been referred to where appropriate?

DATE	ROLE	COMMENT

No items to display.

Research Activities (see G2-G8, M1-M5, H1-H5)

Add Save

Reviewer A: **Reviewer B:**

e.g. Are the research tasks described clearly?
Do sensitive topics such as trauma, bereavement, drug use, child abuse, pornography or extremism/ radicalism inform the research? If so have these been fully addressed? (and we can use this to amend the information on risk levels on the form)Is there any risk that the tasks may cause psychological harm and if so what attempts have been made to alleviate or minimise them?

DATE	ROLE	COMMENT

No items to display.

Data Management Plan (see G3)

Add Save

Reviewer A: **Reviewer B:**

e.g. Have sufficient steps been taken to ensure participant anonymity/confidentiality of data?
Are the arrangements for data storage and disposal clearly outlined?
Are these arrangements in line with University and/or the funding body requirements?

DATE	ROLE	COMMENT

No items to display.

File Attachments (see G6)

File Attachments (see G6)

Add Save

Reviewer A: Reviewer B:

Please note: where file attachments have not been added because they are not required, please select Approve.

COMMENT BY	DATE	ROLE	COMMENT
No items to display.			

General Comments (see Help)

Add Save Help

DATE	ROLE	COMMENT
No items to display.		