# High level overview

- Educational and short game
- Stand alone system
  - arcade using joy stick
  - Designed to be brought to conventions
  - o Online wep app can be a second thought, focus on Hardware though
- Hardware: any embedded computer
  - Raspberry Pi
  - o Odroid
- Software: any software
  - o not unity (doesn't work on Raspberry Pi)
  - PyGame (ideal as easily impleneted with Python Machine Learning)
  - Perhaps JS (Will work on raspberry Pi and web)
- Need a means of feedback
  - Options selecting with joystick
  - Enter name like old arcade game
- Perhaps using pre-made arcade chade raspberry pi from online
- If using Python, checkout Keras and possibly VGG
- Could run neural network in real time so player is 'competing' againist it
  - Timed challenged, fake delay on network for different difficulties
- Make it fun and different from last years

### Resources:

- Murray aggred to give us training data kaggle (website for machine learning, also check out plantet labs)
- Training data doesnt feature forest fire so maybe an option to accuire forest fire data
- Murray is happy to give us example code and trained model. Although may need 'dumbing down' for raspberry pi

#### Other notes

- Flexible on game implementation, up to us
- Typical users are customers, corporate, in thirties/twenties/, not classic engineering, forward thinking

#### **Communications**

- Last year, Craft tried slack, didn't work for them, it was often convuluted
- Instead email with ESE3 at start of subject line
- Aim to give weekly summaries
- Try anf update the wiki regularly
- They'll have acess to gitlab server
- murray.ireland@craftprospect.com
- Murray is main point of contact
- Skype meeting more regularly
- Monthly meeting in person
- Murray is happy to have each individual email based on relevant topics they're working on with other team mates being CC'd
- Andrew will be single point of contact for general planning, *e.g.meetings*

## **Current Deliverables:**

- Case studies of other neural network games
- Change GitLab to Open source license
- Prepare high level overview of what we're going to do:
  - Will neural network comparsion be real-time or pre-generated?
  - How will neural network feeds into game
  - Intended hardware, research other solutions, cost-effective
  - Chat with Engineering about 3D printing Euan Rusell CAD technician
  - Relate idea to existing game concept
- Consideration put into webapp

Decided to meet again in two weeks, in-person. However this needs confirmation and will be agreed via email trail

Email tomorrow of expected propspective

## Other notes:

• Last years game code might be available