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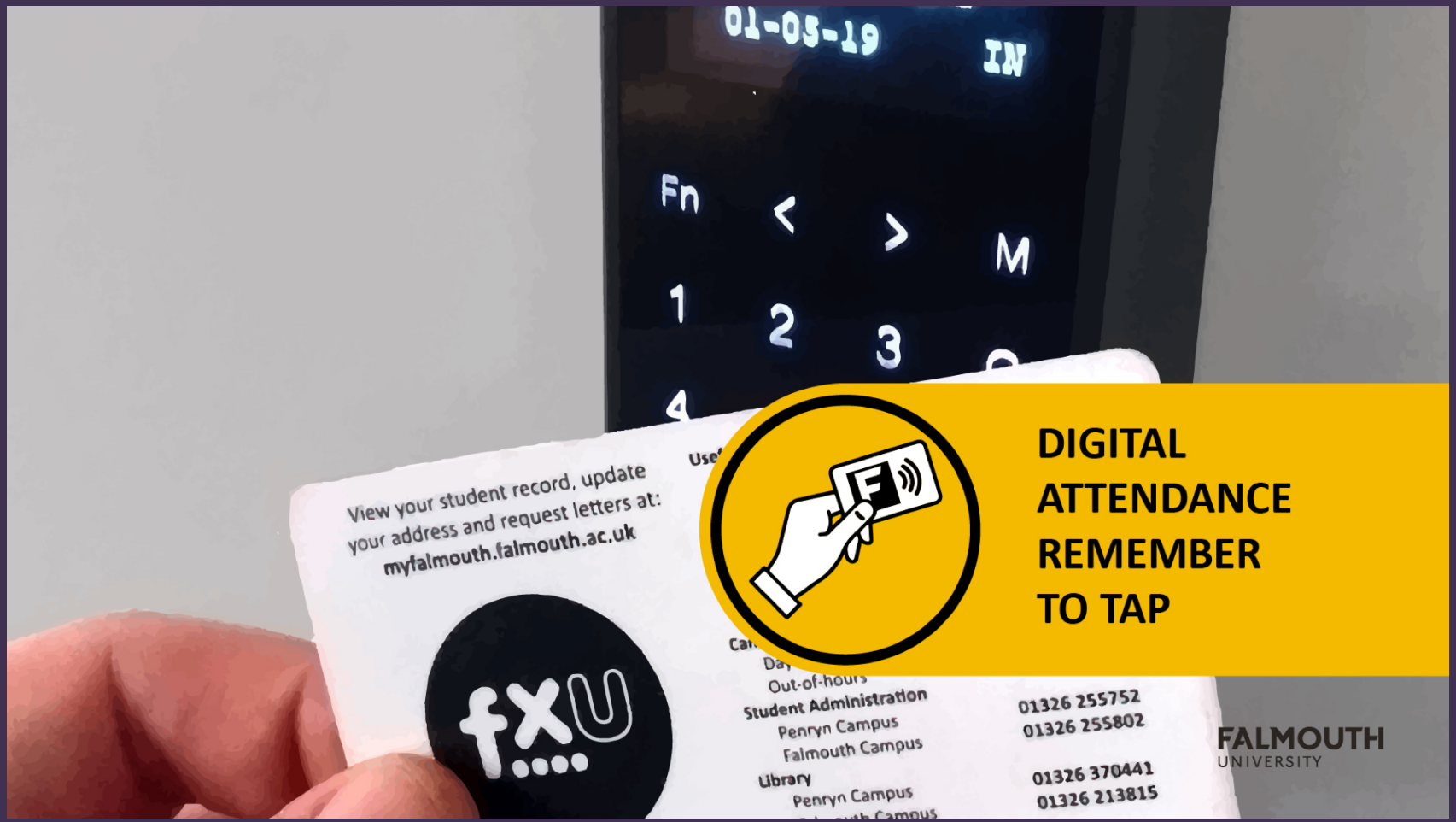

GMAM702: Prototyping for Games

3: Physical Prototyping

Today's agenda

- Prototype Due Date
- Design Goals
- Physical Prototyping

First Prototype - DIY

Due Today 5pm!

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Design Goals

Intro

- As a designer it is important to have sort of intent
- It is important to think of what kind of response you want from your audience
-

Design Pillars

- Something about your game that everything should revolve around
- Establish once the your are in production
- Better for larger games
- Traditionally this is focused on mechanics but try to think about emotions you want at the core of your game

Audience/Player Experience Goals

- Less rigid than Design Pillars
- You should focus on the emotional journey you want the player to go on
- This should inform your design process at all times
- If a feature detracts from this experience then cut it

Constraints

- Constraints are drivers for creativity
- As a Designer you will bump up against them
- The Friction caused will cause you to think of ideas to beat the constraints
- Or to bend them to your will and use them in your design

Game Design Macro

- Monolithic Design Docs are not very useful
- No-one in the team reads them
- Document is slow to evolve
- Game Design Macro attempts to capture the high level design

Game Design Macro

Design Goals, Macro & Schedule

Audience Experience Goals:

E.g. a game that makes the player laugh out loud

Design Goals:

E.g. a first-person game that uses colour

Design Macro and Schedule:

Asset of Feature Name	Type	Time Estimate	Done!

One Page Designs

- First described by Stone Librande (Riot Games)
- Instead of writing a Design Doc
- You write a series of one page design docs which detail some aspect of the game
- This could be a map, a visual description of the combat, relationship between characters

One Page Designs

Direct
Shot does not travel along path, but hits target instaneously.

Parameters:
delay

Melee
A type of direct damage that can only be delivered by the source being within close range of a target.

Parameters:
same as Direct
min-max range
move in and attack (on/off)

Instant
Near instaneous delivery that cannot be dodged, but can be blocked by other objects.

Parameters:
min-max range
pierce (on/off)

Propelled
Shoots out an object (actor) that can be dodged or blocked by other objects.

Parameters:
min-max range
distance trigger
time trigger
velocity
pierce (on/off)

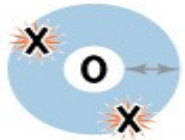
Lobbed
A type of propelled delivery that arcs up and passes over objects.

Parameters:
same as Propelled
launch angle

Pathing (Homing)
A type of propelled delivery that follows an arbitrary set of rules (AI) and attempts to reach a target, despite obstacles.

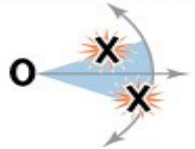
Parameters:
same as Propelled
pathing rules

Area - Circle
Payloads delivered to all targets within area at a set rate.



Parameters:
frequency of payloads
distribution
dissipation
min-max range
min-max height
spherical or cylindrical

Area - Cone
Similar to a circle, but in a specified arc.

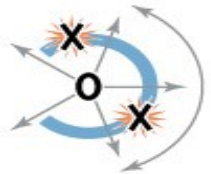


Parameters:
same as Circle
min-max arc width

Area - Beam
Similar to a cone, but in a rectangular shape.

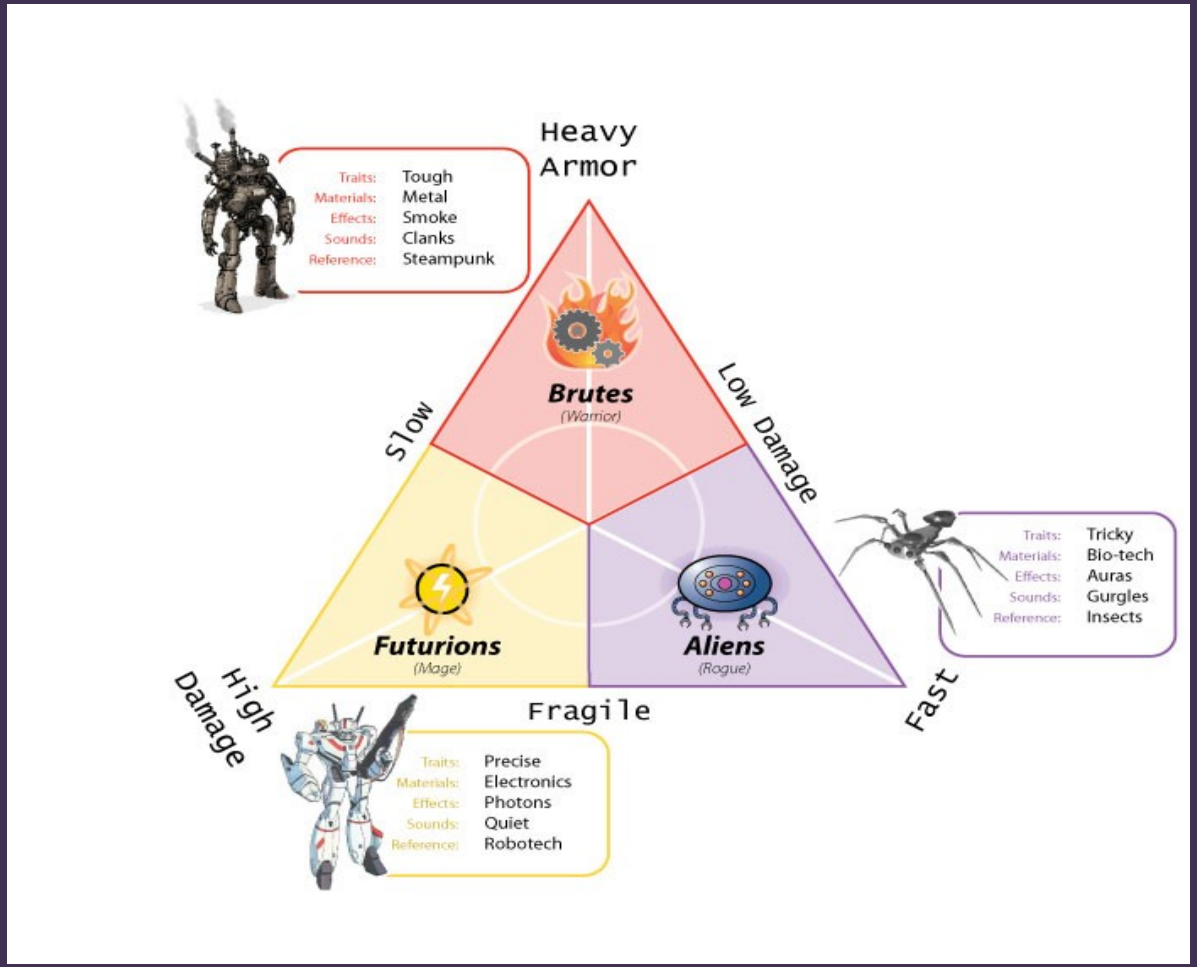
Parameters:
frequency of payloads
distribution
dissipation
min-max x,y,z

Nova (Wave)
Attack radiates out from central point.
Target takes one hit as wave passes through it.
(Note: novas are typically a full circle, but do not have to be).

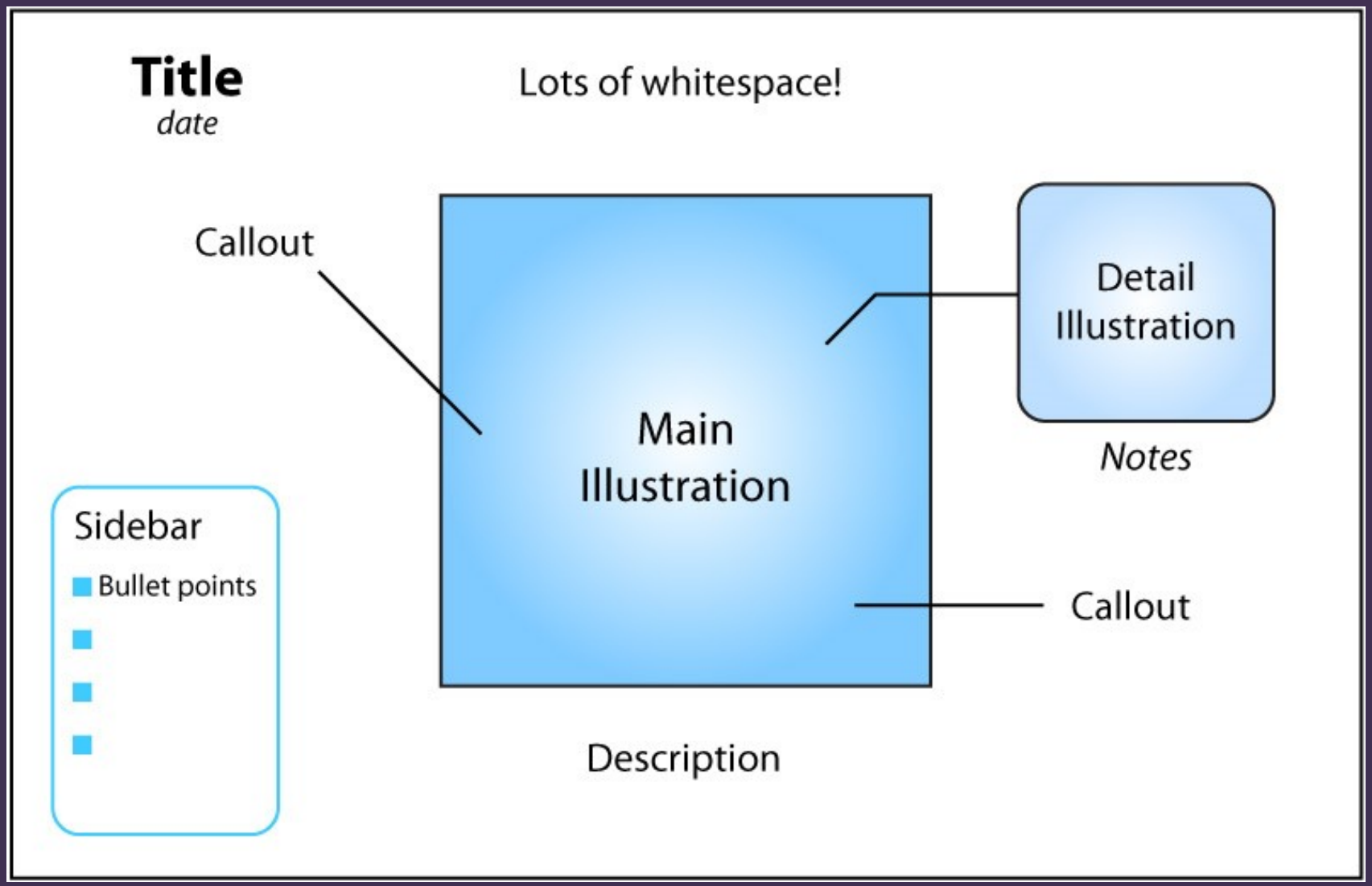


Parameters:
min-max range
min-max arc
velocity
2D or 3D
ground hugging (on/off)
dissipation

One Page Designs



One Page Design Template



One Page Design Benefits

- Forces a complete understanding of the game
- Forces a concise design
- Highlights relationships
- Aids problem solving

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Physical Prototyping

Intro

- Are the easiest for designers to construct
- Usually created from
  - hand-drawn items
  - found objects
  - boardgame pieces


STEINB

- Two approaches
  - Focus on gameplay (see below)
  - Mock up what the game would play like

Benefits of Paper

- Allows you to focus on gameplay rather than technology
- Easier to iterate
- Easier to amend, can respond in real time to player feedback

Physical Prototyping Hints

- In early iterations pay no attention to art work
- Build a representation of your core gameplay
- Designing the space (board) will give you an idea how your units will move
- Designing basic objects will help you build relationships in your game
- Try to keep the ruleset simple, only add a rule to make the gameplay playable

Physical Prototyping Issues

- Not great for tracking lots of information
- Game rhythm issues, physical prototypes tend to have a rigid turn structure
- Difficult to prototype Kinesthetics

Second Prototype - Theme Announcement

Due Friday 5pm on Week 5!

References

- Fullerton, T., 2018. Game design workshop: a playcentric approach to creating innovative games. AK Peters/CRC Press.
- Building a Paper Prototype For Your Narrative Design - https://www.youtube.com/watch?v=taxcb_5lEI8
- https://perspectivesingamedesign.com/paper-prototyping-and-iterative-design-part-1-b

- Innovation Through Better Design Pillars `https://www.gdcvault.com/browse/gdc-17/play/1024176`
- One-Page Designs `https://www.gdcvault.com/play/1012356/One-Page`