





GMAM702: Prototyping for Games

3: Prototyping Principles

Today's agenda

- ▶ Prototype Due Date
- ▶ Design Goals
- ▶ Physical Prototyping

First Prototype - DIY

Due Today 5pm!

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 you 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 instantaneously.

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
pierce (on/off)

Instant
Near instantaneous 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

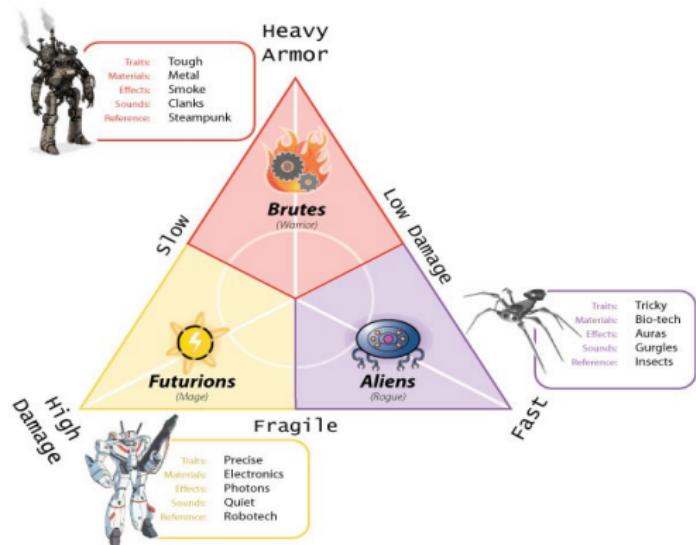
Area - Beam
Similar to a cone, but in a rectangular shape.

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

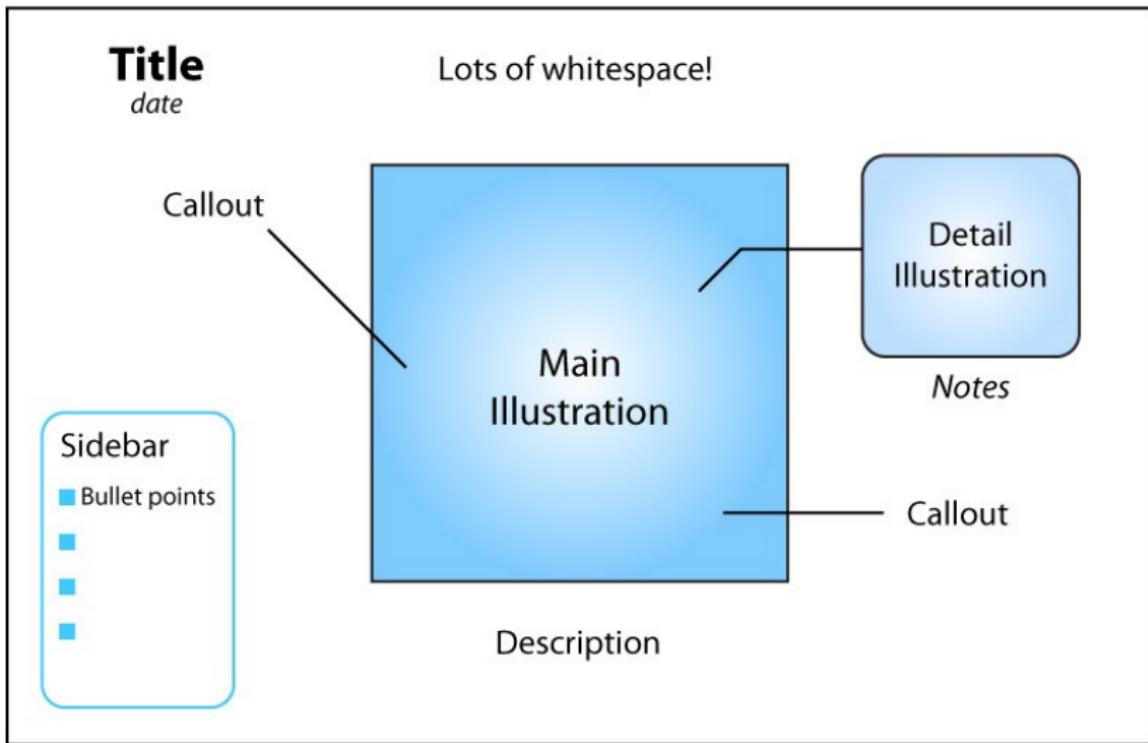
Nova (Wave)
Attack radiates out from central point.
Target takes one hit as wave passes through it.
(Note: novas are typically a full circle, but do not have to be).

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

Physical Prototyping

Intro

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



- ▶ 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>