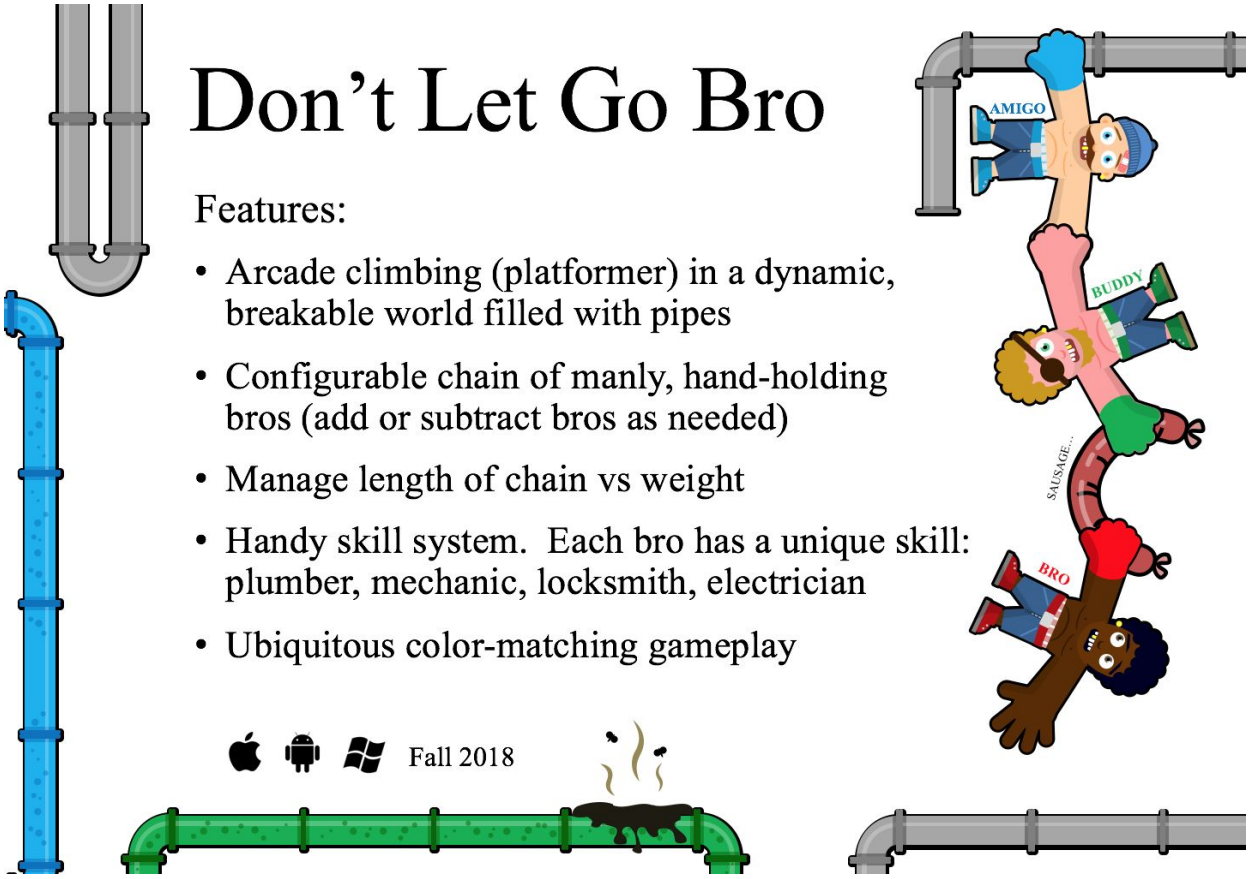


Introduction:

'Don't Let Go Bro' is planned to be a mobile game in which a team of 'Bros' work together to swing between pipes and transverse puzzles. The independent 'Bros' link their hands and create chains which the user can drag between pipes. This game will include aspects of complex motion, world interaction, character strain, and puzzle solving.

The agile product owner, Mark Nelson, is an experienced Game Developer who has brought both this project and 'MegaCube' to the Stevens Senior Design Program. He has expressed that the goal of our project is to create a game that is both playable and fun for the end user. While Mark handles the art direction, publishing, and other business aspects, we are the programming backbone building and fleshing out his design into a workable product.

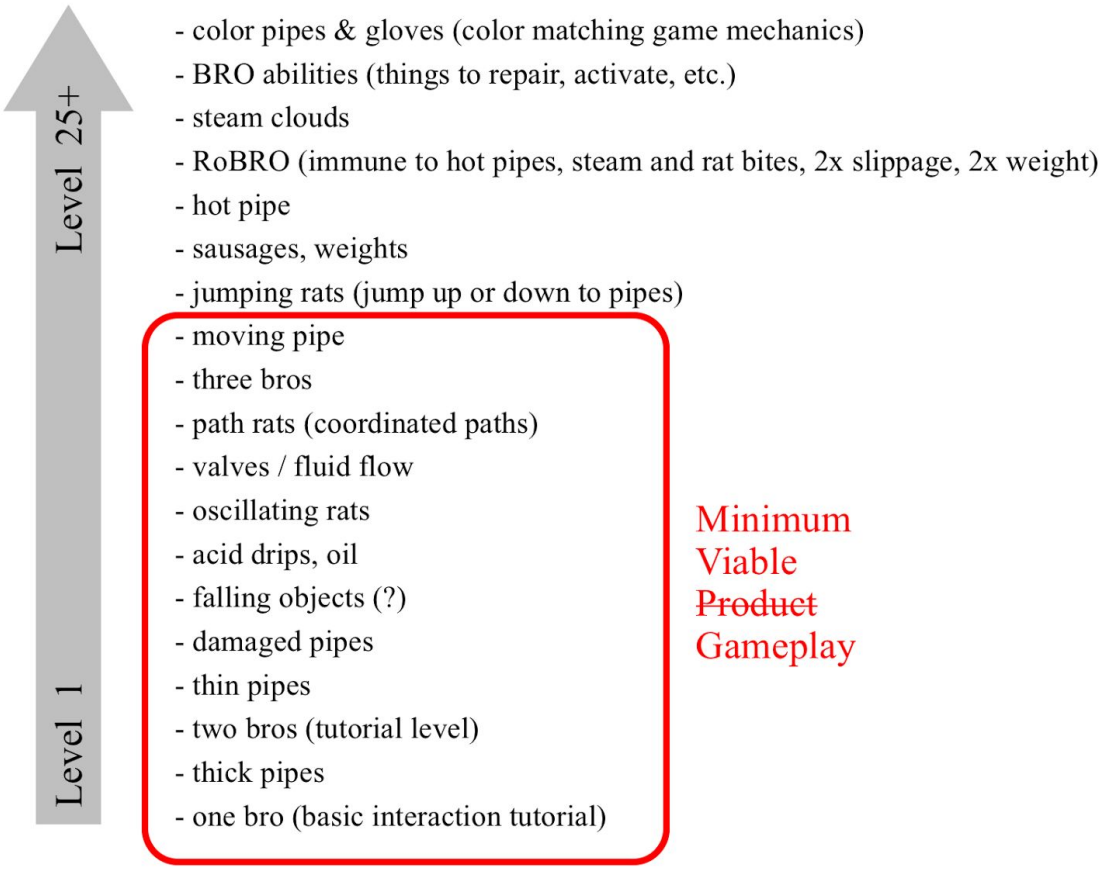
Development Deliverables:

1. The player moves the free hand of the chain of BROs, positioning it in a graspable area (pipe surfaces)
2. Player can climb in ANY direction where there is a free graspable area
3. The player can have one end of the BRO chain freely moving. The other end MUST be attached to a pipe

4. When both ends of the BRO chain are attached to pipes, the BROs are considered resting/rested
5. When one hand is free, the BROs are exerting themselves and may fall from fatigue
6. Some pipe surfaces provide better handholds than others
7. Pipe surfaces can be normal, slippery, sticky, hot, moving or unstable
8. Unstable pipes can break apart, dropping the BOs
9. Hot pipes cause the BROs to eventually let go and fall
10. Slippery pipes can cause the BROs to slide down (vertical pipes) or lose their grip and fall (horizontal pipes)
11. Sticky pipes can cause BROs to climb more slowly (2x grip release time)
12. Moving pipes can cause the BRO chain to stretch too far, breaking them apart and causing them to fall
13. Longer BRO chains are heavier and break unstable groups of pipes more quickly
14. Longer BRO chains reach further and provide access to more distant sections of pipe (possibility space)
15. Each BRO can be separated from the chain and moved independently, creating up to 4 separate avatars
16. To separate BROs, press or mouse click on the connecting hands and pull them apart
17. Pressing the UI portrait of each BRO (upper right corner of UI) will center the view on that BRO avatar
18. All BROs can turn valves
19. All BROs can repair pipe
20. All BROs can pull (and hold) levers to open doors and activate machines

Expected Levels:

PLAY PROGRESSION



Game Mechanics:

AVATAR FEEL

Physics Feel	Interactive Feel	Animated Feel
• Avatar is dragged around like a chain and anchored to pipes • Does not present player with feeling of agency. Avatar feels like string of corpses • Ragdoll	• Avatar is directed around by touching the free hand of a BRO • The avatars "appear" to individually apply force to the whole chain to enable the free hand to reach in the direction the player is moving it in • Fatigue / Collapse • Sense of agency since you are controlling the avatar continuously	• The player taps the destination pipe and the avatar tries to find a movement solution to reach that pipe • Probably lower sense of agency since you are **not** controlling the avatar from moment to moment

Team Introduction:

Steph Oro:

Role: Agile Lead, Algorithm Design, General Programming

Robyn Verrill:

Role: Unit Testing, General Programming

Adam Gincel:

Role: UI/UX, General Programming

Christian Bouwense:

Role: Characters and Interaction, General Programming

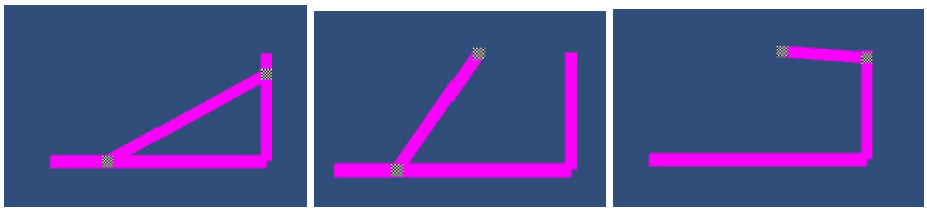
Alex Massenzio:

Role: Visual Effects, Game Mechanic Design, General Programming

Latest Work:

Steph

- Bro Point
    - C# Class
    - Can Be Dragged by User
    - Can Snap to Pipe if Dragged to a Pipe
    - Can Hang Free in Air if not Released by a Pipe.
    - Render & Editable in Editing Mode as Well
- Bro Line
    - Spans Two Bro Points Visually
    - Renders in Editing Mode as Well
- Attractors
    - C# Class
    - Has a Material
- Pipes
    - C# Class
    - Horizontal and Vertical Prefabs & Modes
    - Rendered as a Line
    - BroLine Can Connect and Snap to Pipes
    - Generate Colliders
    - Render & Editable in Editing Mode as Well

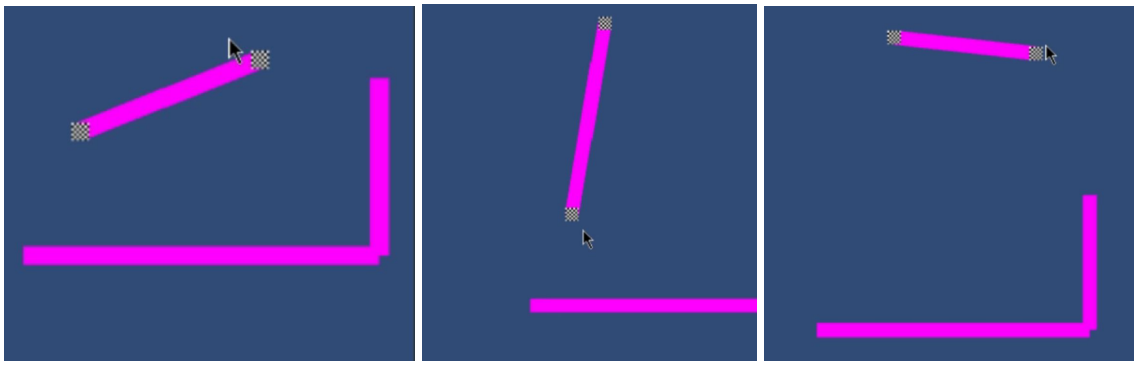


Adam

- UI Canvas Layer
- Pause Button
- Bro Profile Switching Buttons (Labelled 1, 2, & 3)

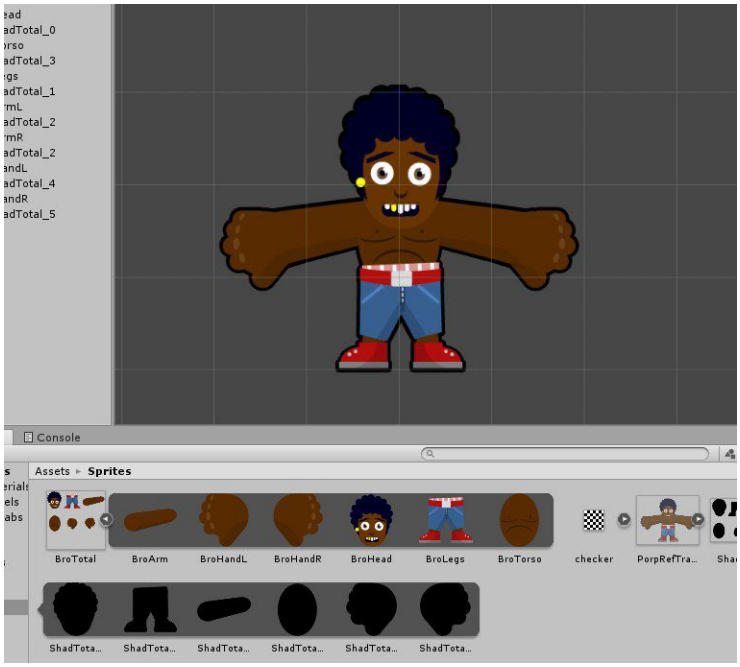
Alex

- Camera Follow
    - C# Class
- Average of bro positions becomes center of camera focus
- Smooth Interpolation as Bros Move



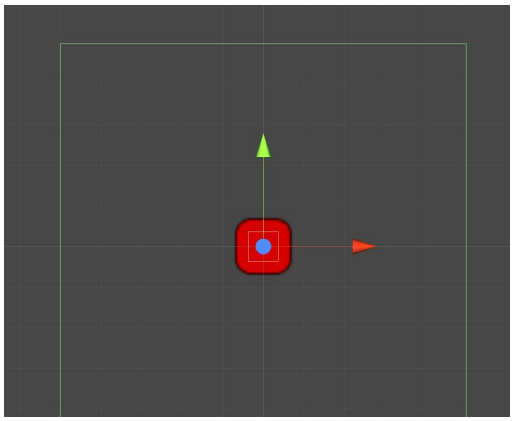
Robyn

- Bro Prefab
    - Basic Sprite Setup
    - Establish Appropriate Character Size and Proportions
    - Layered and Groups Parts appropriately
    - Readied for Animation Scripting

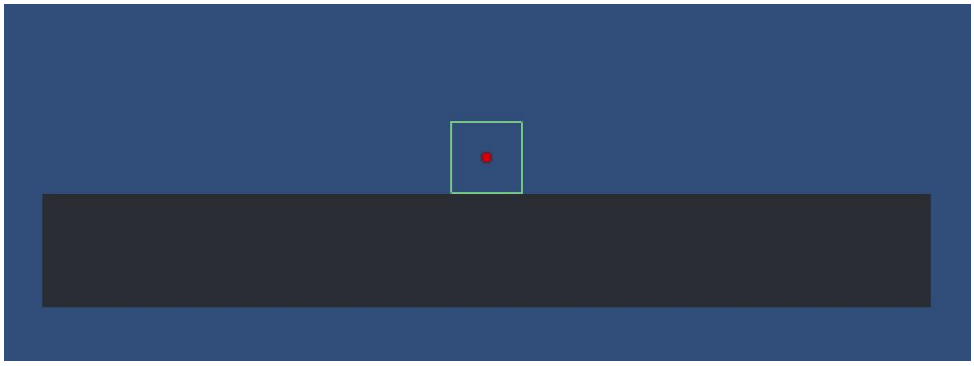


Christian Bouwense

- Rat Prefab
    - C# Class



- Box Platform
    - C# Class



Pledge:

I pledge my honor that I have abided by the Stevens Honor System

- *Steph Oro, Robyn Verrill, Alex Massenzio, Adam Gincel, Christian Bouwense*