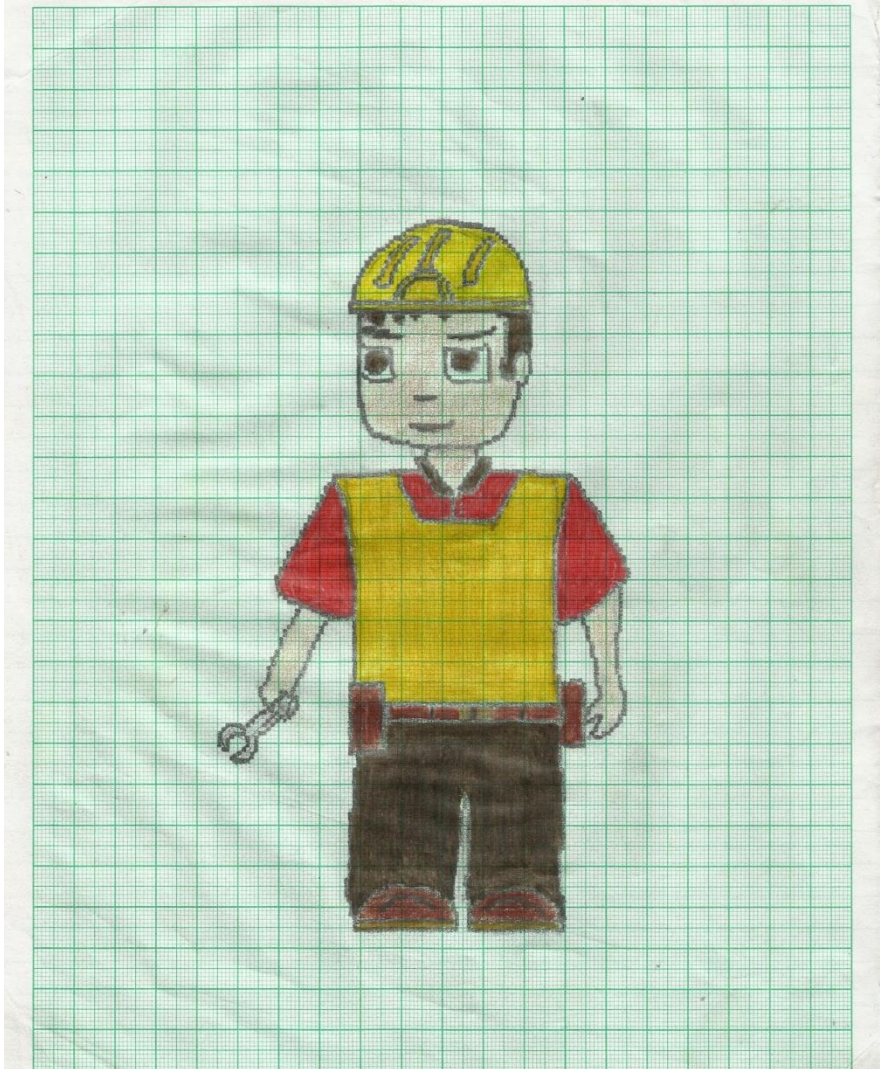# Crane Strain Game Design Document

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Introduction to Programming Module
Game Design Document

Genre:

This game is a 2D side-scrolling platformer.

Objective:

The crane has malfunctioned. To fix it you have to collect 3 tools lying around the level and climb up to the crane's console. You also have to make sure that you don't get harmed by any of the objects being dropped by the malfunctioning crane.

Back story and Plot:

The game doesn't have much of a story line. The workers are close friends who enjoy working together and they aim to one day make one the biggest of buildings in the world and make their company famous.

The game is very colorful and will appeal a lot all age groups. The player gets to control and place the cranes in the construction site, then lift the building materials and place them to aid in construction, the player will also have to help the workers by providing them tools and aiding them get around different zones in the construction site. The player then controls the workers and makes them reinforce the building by using the materials passed by the crane. As the game progresses the levels get harder and the buildings bigger and higher until eventually the workers achieve their lifelong dream of making one of the biggest buildings in the world as a monument for all to see.

Game Play Mechanics:

Actions allowed for the player:

In side scrolling view, the player can move left or right and jump up and down.

Gameplay:

Players have to reach the top of the building by avoiding obstacles and reaching the top. Players have to take care not to get hit by the falling objects. Players also have to make sure they collect all the tools in the level or else they won't be able to fix anything.

Characters List and Description:

1)Player characters:

1:Ronnie Navas

2:Control Modes: the character is controlled the same way in all game-play modes.

Button	Action
UP	CLIMBS UP LADDERS/OBSTACLES
DOWN	CLIMBS DOWN
LEFT	MOVES CHARACTER LEFT
RIGHT	MOVES CHARACTER RIGHT
SPACEBAR	JUMP

1)Name: Ronnie Navas

Age:28 yrs

Height:155cm

Anatomy: small body,big head,cartoonish features

Light skin color

Average Physique

Costume: construction workers costume with construction helmet because the character is a builder by profession.

Behavior: cheerful, joking, never say never attitude and very diligent.

Abilities: increased intelligence stat, pick up and drop items, skill with tools is high.

Concept Artwork:

Character interactions:

Character	Interactions	Effect
Builder	Get hit by falling object	-20% health
Builder	Use action key at crane console	Attempt to repair the crane and complete the level
Builder	Collect tool	Increased chance to repair the crane

Prop List:

- ➤ Name: Crate
- ➤ Effect: this crate drops across the level
- ➤ If the character gets hit by this he loses 20% health.

- ➤ Name: Barrel
- ➤ Effect: this barrel drops across the level
- ➤ If the character gets hit by this he loses 20% health.

- ➤ Name: Iron Weight
- ➤ Effect: this Iron Weight drops across the level
- ➤ If the character gets hit by this he loses 20% health.

- ➤ Name: Wood Planks
- ➤ Effect: these Wood Planks drop across the level
- ➤ If the character gets hit by this he loses 20% health.

- ➤ Name: Spanner tool
- ➤ Effect: found lying around the level
- ➤ The character needs to pick this up to fix the crane.

- ➤ Name: hammer tool
- ➤ Effect: found lying around the level
- ➤ The character needs to pick this up to fix the crane.

- ➤ Name: pliers tool
- ➤ Effect: found lying around the level
- ➤ The character needs to pick this up to fix the crane.

Technical Design Consideration:

1) Game engine used:

The engine used for this game is the xna game studio.

2)System requirements:

these are the system requirements for the xna game studio.

Supported operating systems: Windows 7, Windows Vista, Windows XP

To run XNA Framework games on a computer running a Windows operating system, you need a graphics card that supports, at minimum, Shader Model 1.1 and DirectX 9.0c. We recommend using a graphics card that supports Shader Model 2.0, which is required by some samples and starter kits. To execute and debug XNA Framework games for Windows Phone with the Windows Phone emulator, you need a graphics card that supports, at minimum, DirectX 10, with a supporting WDDM 1.1 driver. To develop XNA Framework games for Xbox 360, you need a hard disk installed on your Xbox 360 console. Other hardware requirements for XNA Game Studio 4.0 are identical to those for Microsoft Visual Studio 2010.