

# NICView: An Interactive Neonatal Case Simulator

***Aperture Bioscience Laboratories***

*Jennifer Duan, Caitlin Li, Lindsey Sumners,  
Pamela Wu, Amy Young*

# Introduction

- Lack of real case practice
- Patient safety
- Work hour limits
- Convenience
- Volume/Variety

# Limitations of Doll and Solution

- Convenience
  - Safety
  - Logistics
- Volume
  - Variety



<http://www.kyforward.com/our-health/files/2013/07/doll.jpg>

# Our Project

- User-Software Interaction
  - Interactive
  - User-friendly
- User-Administrator
  - Feedback system
  - Consequence/Reward
- User-User Interaction
  - Forum
  - Recordable data

# Team Members

- Situation Design and Organization
  - Amy Young (Team Lead)
  - Caitlin Li (External Communications)
  - Lindsey Sumners (Logistics Management)
- Game Design and Development
  - Jennifer Duan (Lead Programmer/Website Management)
  - Pamela Wu (Character Design/Meeting Secretary)

# Desired Outcomes

- Residents and medical school students should be able to use our program at home
- The NICU should see increased problem-solving competency and confidence in their residents
- Our program should be modifiable to add more scenarios as desired

# Evaluation

- Self evaluation based on three categories:
  - Objectives established at every team meeting
    - Lindsey will make a weekly team agenda that is sent out every Sunday
  - Prototype functionality
  - Accurate and effective method for medical residents to learn and practice medicine in the NICU

# History of Project

- Consisted of 6 meetings
- Main objectives of these meetings
  - Creation of Gantt chart
  - Meeting with Dr. Krakauer
  - Determined properties of game, initial scenario, and roles of each member



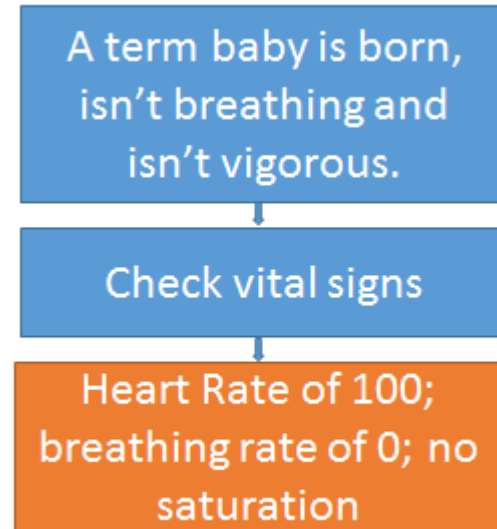
# Work Plan - Fall 2014

## Important Dates:

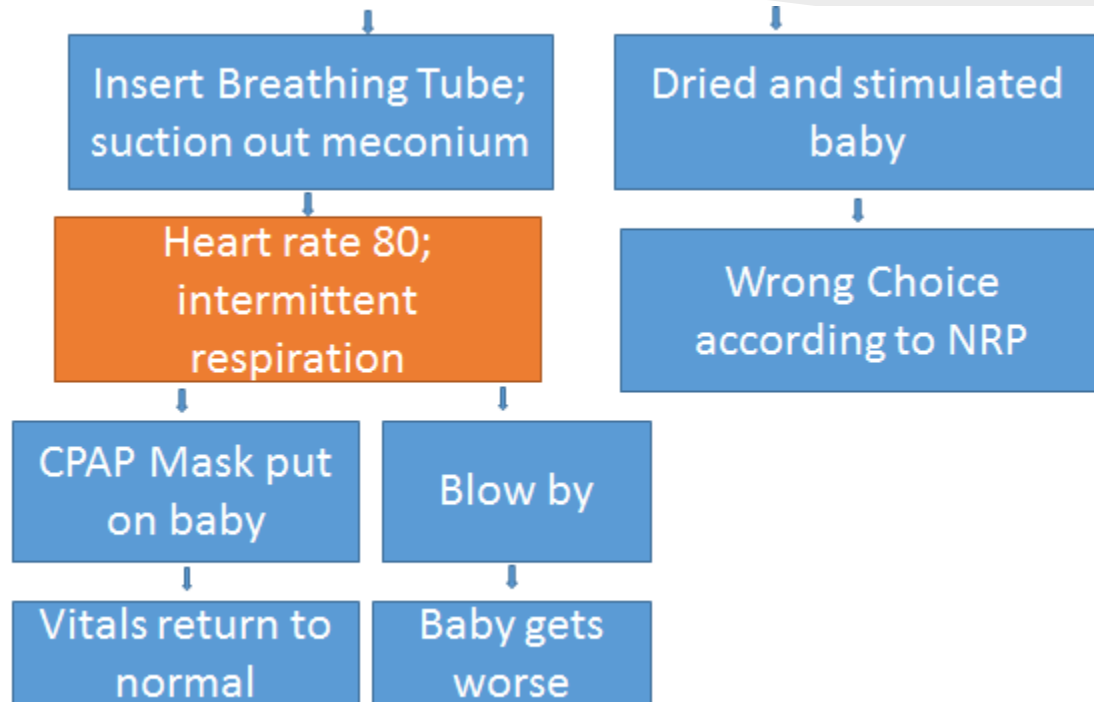
- 1. 11/21/14** - Finish object design in Unity3d
- 2. 11/22/14** - Begin programming initial scenario in Unity3d
- 3. 12/2/14** - Finish programming initial scenario
- 4. 12/5/14** - Meeting with Dr. Krakauer to obtain second scenario

# Initial Scenario

- Given by Dr. Krakauer
- Chosen based on ease of coding and clear determination of best scenario



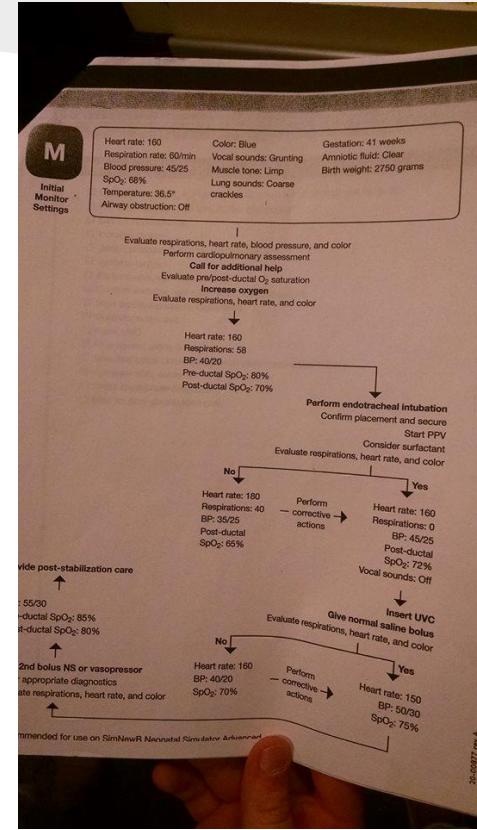
# Initial Scenario



# Progress - NICU Visit

## Visited a NICU Simulation Session

- Obtained sample flow chart used for simulation doll
- Medical equipment knowledge



# Progress-Development Software



Powered by  
**GameSalad**®

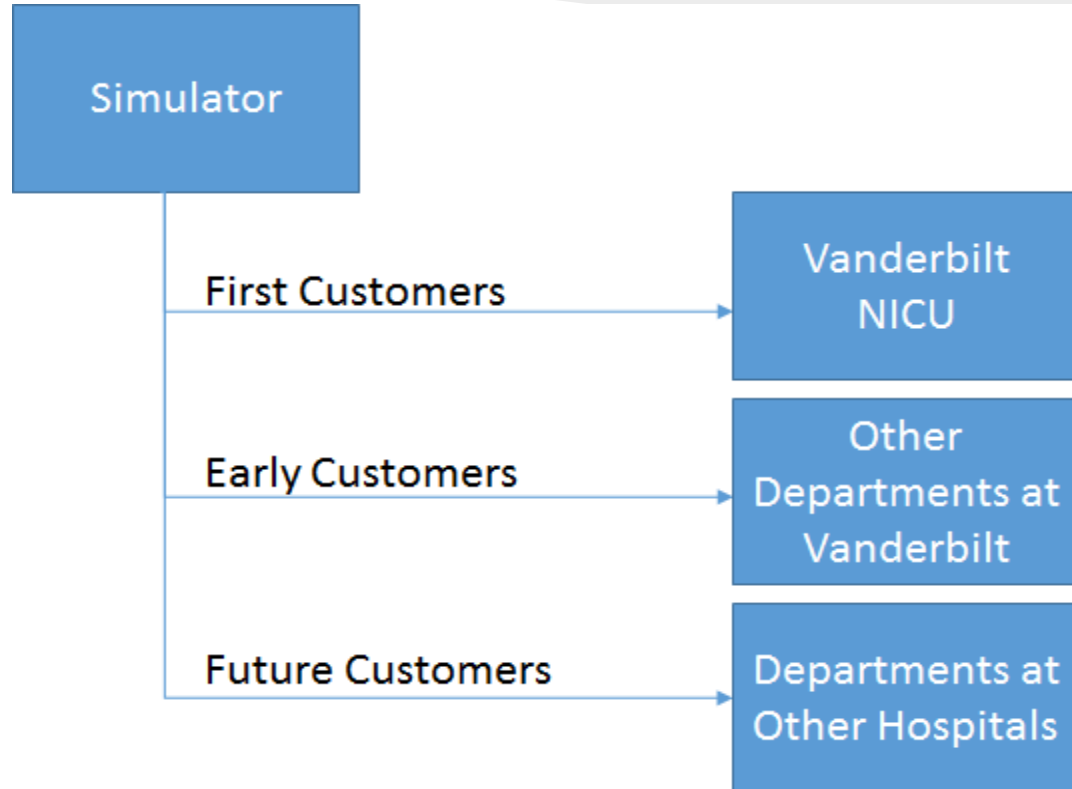


**GameMaker: Studio**

# Unity-Design



# Business Model



# Spring 2015 Work Plan

1. **1/10/15** - Finish second scenario flowchart/start work on forum
2. **3/1/15** - Finish programming second scenario
3. **3/10/15** - Obtain third scenario from sponsor
4. **3/18/15** - Finish third scenario flowchart
5. **4/9/15** - Finish programming third scenario/finish forum
6. **4/10/15** - Fine tune aesthetics of the game
7. **4/20/15** - Present at Design Day