# 1 Week 1 (6/21/16 - 6/27/16)

This weeks tasks:

- Idea generation

- Early drafts

- Early game prototype

## 1.1 Idea generation

Required constraints:

- Game

- Heartbeat or breathing sensor

- "Physical computing"

- Q-learning

- "Affective computing"

### 1.1.1 Final Concept: Flappy Penguin (working name)

A game in the spirit of *Flappy Bird* featuring:

- "Protagonist" is a penguin

- Side-scrolling movement

- Ice blocks entering the stage as obstacles

- *Physical object* controls penguin movement

- Breath-meter indicates penguins remaining breath

- User breathing while the penguin is under water reduces the breath-meter

- User breathing while the penguin is at the water surface replenishes breath-meter

- Empty breath meter means death by suffocation, i.e. game over

- Additional air bubbles can be collected under water to increase breath

- *Q-learning* used for either placement of air bubbles of a second, computer-controlled penguin

- Visually using the style of *Thomas was Alone*

Figure 1: Concept sketches

## 1.2 Early drafts

See figure 1

Figure 2: Screenshots of different iterations

## 1.3   Early game prototype

See figure 2