Development Environment

* Microsoft Visual Studio 10 Professional, Windows 8.1

Development Period

* Three days
* Total 15 hours

Data Structure

* Struct: Storing 2D x, y point for line and rectangle
* Vector: Creating and managing objects using vector struct

Overview of the code design

1. Key Processing: Processing key events to shoot from cannon and adjust an angle of cannon.
2. Collision Detection: Detecting collision between 1) clocks and border of screen 2) projectile and screen 3) clocks and clocks. Processing the jobs when collision is detected such as re-bounding the object and splitting a clock.
3. Movement: Indicating the location of projectiles and clocks at next tick
4. Drawing: Drawing cannon, projectiles, clocks
5. Functions: There are functions for collision detection, creating initial two clock objects, creating clock objects after a clock splits.