# 9 Rough Sketch

The time required to finish the product is estimated to be 18 months whereas the prototype’s time schedule is set to be finished within 14 weeks. Within these 14 weeks the prototype will be built according to the Unified Process(UP) and each week represents an iteration. A first analysis yielded the following Use-Cases:

## Use-Cases:

1. Playing a variable number of rounds of the tower defense game with multiple enemy types and tower types. This includes the following Sub-Use-Cases:
   1. Placing affordable towers on the map
   2. Upgrading existing towers if affordable
   3. Tearing down towers
   4. Pause the running game
2. Creating a map using a spreadsheet editor
3. Opening and editing an existing map
4. Loading a map in the game and playing it according to UC 1.

## Risks:

* Complexity of development exceeding expecations – resulting in more time consuming effort.

## Rough Time Schedule for the Prototype

The development of the prototype will require an estimated amount of time of 480 hours which should be reached by weekly iterations according to the following time schedule:

|  |  |  |  |
| --- | --- | --- | --- |
| **Phase** | **Iteration** | **Start / Duration [weeks]** | **Objective** |
| **Inception** | 1 | 1 / 2 | Project sketch finished, IDE prepared, UC identified, Architecture determined |
| **Milestone** | M1 | End of Week 2 |  |
| **Elaboration** | 2 | 3 / 2 | Detailed UC 1-4 |
|  | 3 | 5 / 2 |  |
| **Milestone** | M2 | End of week 6 |  |
| **Construction** | 4 | 7 / 2 |  |
|  | 5 | 9 / 2 |  |
|  | 6 | 11 / 2 |  |
|  | 7 | 13 / 2 |  |
| **Milestone** | M3 | End of week 14 |  |