# Character Controls and HUD Systems TDD

## V\_00.01

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# Introduction

## Rationale

This TDD is for adding elements of a HUD into the game, including status bars, a minimap and compass and a damage flash and death screen. Other elements of controlling the player such as crouching and sprinting, keybinds and taking damage/dying will also be functional.

## Background

The HUD in a game is the display on-screen as the player plays the game that includes all the necessary information at the time for example health, score, available skills and status effects. The exact elements of the HUD differ depending on the type of game, but almost every game requires some kind of displayed information that the player can see to follow what’s happening in the game.

## Terminology

HUD – Heads Up Display

TDD – Technical Design Document

GUI – Graphical User Interface

UML – Unified Modeling Language

HP – Health points/Hit points

MP – Mana points

## Non-Goals

## Proposed Design

* Player Icon
  + Displays a front view of the character next to the status bars
* Status bars
  + Bars for health, mana and stamina coloured differently to show which is which
  + On values changing (e.g. taking damage) amount filled in bars changes to reflect new value
  + Bars refill at different rates
* Minimap
  + Minimap displayed showing player from high above
  + Location markers on minimap for shops and important areas
  + Markers for player and enemies on minimap
  + Compass displayed next to minimap showing which direction the player is facing
* Gameplay
  + Player can move and look around and has controlled based off keybinds
  + Player can crouch and sprint to change speeds
  + Sprinting uses up stamina and player cannot sprint if at zero stamina
  + Screen flashes red when taking damage
  + Death screen
    - When player health hits 0, player dies and cannot move anymore
    - Upon dying a screen comes up that allows the player to respawn or quit
    - Respawning sets the character back to a location and sets status values back to full
  + Crosshair in center of screen

# System Architecture

If the design consists of a collaboration between multiple large-scale components, list those components here — or better, include a diagram [UML].

## //Data types

## //Data Model

## //Interface/API Definitions

## //Impact

## //Risks

## //Alternatives

# System Testing

## //Testing

Show progress, Error reports and explain fixes you used.

**Minimap HUD**