At Debt's Door Game Design Document

Edison Cai, Sergiu Mereacre, Bayan Nezamabad, Jack O'Brien

April 5, 2021

TABLE OF CONTENTS

INTRODUCTION/OVERVIEW

At Debt's Door (or A.D.D.) is a fast-paced shooter/strategy game. The goal of the game is to sneak in and infiltrate various locations such as banks, jewellery stores, convenient stores etc., and loot as much as you can without getting caught by the police that will try to oppose you and hunt you down. This takes place from a top-down perspective where the camera follows the player as he carries out these heists. Many beneficial tools and weapons can be acquired and earned throughout the game to help ease the players pursuits and improve their experience.

While stealth is the opportune approach, it is not necessary. If the player desires it, they can choose brutal offensive assault instead. Weapons such as pistols and shotguns along with body armour help you carry out this risky task.

STORY SUMMARISED

A.D.D. is set in the modern American era, where money rules and you, "The Player", live your life desperately trying to gather it. After some poor choices and even worse gambles, you find yourself in debt to the infamous Starman (our main antagonist), America's most renowned mob boss. Left with a limited time frame, "The Player" has no choice but to resort to a life of crime and life-threatening activities. Daily, "The Player" will perform actions that puts his life and freedom in danger for the ability to pay the money owed back.

FEATURES THAT MAKE THE GAME COMPELLING AND UNIQUE

One of the core themes of the game is money, this means that naturally, a lot of the game's features will revolve around money and how it can be used. Money is the thing that motivates the player through Starman's threats, but players will find it difficult to collect the amount owed without spending a bit of it on useful items. This creates an interesting conflict in the player's mind. Should they play it safe and leave themselves vulnerable to attacks or should they invest some of it in equipment to better defend themselves? Players should keep in mind that they should think ahead when buying weapons as they have durability and will be destroyed if they are used too many times. So, it is important to use items appropriately. As you gather more money in a stage, you will get slowed down by the weight of the money. If you do not want to get slowed down, you might have to throw some of it away to flee from a dangerous situation which we believe adds another layer of strategy. We really wanted to incorporate the notion of "High Risk, High Reward" into our game.

GAME MECHANICS

Can move around in a 2D space. Can't run but can roll to gain extra speed.

```
#When you roll, your speed is increased
func roll_state():
    velocity = roll_vector * ROLL_SPEED
    animationState.travel("Roll")
    move()
```

When approaching an item/person that can be interacted with, an icon will pop up, signifying that they are interactive. Can steal from people and objects such as safes. Can kill people and destroy certain objects such as security cameras. Can use melee and ranged weapons, both with their own benefits and flaws. Can cycle through weapons. Durability encourages the player to be strategic when using weapons. Shop available to buy items from and there is a load-out screen where players can equip what weapons they want. There is a map selection screen where players can choose where to go. There are collectibles in some stages that gravitate towards the player once they are close enough to it. You slow down as you gather more money, but you can throw some away.

```
#Accelerates towards player once he enters the playerDetection area
func _physics_process(delta):
    for body in playerDetection.get_overlapping_bodies():
        if body.is_in_group("player"):
            var vector = get_tree().get_nodes_in_group("player")[0].global_position - global_position
            #Gradually gain speed until the max velocity is reached
            velocity = velocity.move_toward(vector * MAX_SPEED, ACCELERATION * delta)
    velocity = velocity.move_toward(Vector2.ZERO, FRICTION * delta)
    move()

#Function that allows you to move
func move():
    velocity = move_and_slide(velocity)
```

Every time you exit a stage, a day passes by and the deadline approaches.

GAME MECHANICS - SUMMARY

In summary, A.D.D. exhibits many features found in other top-down 2D shooters but incorporates some that are unique to itself. It was important for us to express our creativity and make the game even more enjoyable than a typical 2D top-down shooter.

GAME AI

All the AI in A.D.D. can be broken down into 2 different types: Passive and Aggressive AI. This was the simplest design choice for us.

PASSIVE AI

When the player is being a model citizen and not causing trouble such as attacking or stealing, passive NPCs will randomly switch between their "IDLE" and "WANDER" states. Using a timer with intervals of several seconds, every time it counts down to zero, one of the two states will be chosen, and the timer will be reset.

```
#Creates a timer that picks a random state every couple of seconds
timer.set_wait_time(3.0)
timer.set_one_shot(false)
timer.connect("timeout", self, "update_wander")
add_child(timer)
timer.start()
state = pick_random_state([IDLE, WANDER])

#Set a separate panic timer but don't start it until the NPC is in the PANIC state
panicTimer.set_wait_time(0.5)
panicTimer.set_one_shot(false)
panicTimer.connect("timeout", self, "update_target_position")
add_child(panicTimer)
```

However, if the player is in the NPC's area of detection while committing crime, their state will flip to "PANIC", which will alert the stage that the player has been detected, which will consequently spawn in enemy cops.

```
#If the player can be detected,
if playerDetectionZone.can_see_player():
    #If the player is in either state 2(ATTACK) or 3(CRIME), set the state to panic
    if str(playerDetectionZone.player.get_state()) == "2" or Global.player_committing_crime == true:
        #If the NPC is not already panicking
        if state != PANIC:
            #Stop the idle and walk timer
            timer.disconnect("timeout", self, "update_wander")
            #Start the panic timer and set the state to PANIC
            panicTimer.start()
            state = PANIC
```

AGGRESSIVE AI

Once the world has been alerted of the player's crimes, enemies will spawn and target the player. They also have an area of detection and if the player is within this area, they will be chased down mercilessly. If they get close enough to the player, they will start attacking with whatever weapon is in their possession. If the player manages to escape from their area of detection, the cops' states will also flip between "IDLE" and "WANDER", looking for the player.

GAME ELEMENTS: CHARACTERS, ITEMS, OBJECTS/MECHANISMS

There are several characters: The player, classy woman, Timmy, cops with different styles and the dealer. There are interactive objects such as safes that can be stolen from and doors that can be opened. In some stages, you will be able to pick up loot such as coins and jewels which adds to the amount of money you own. As you approach them, they will gravitate towards the player [2]. You can buy various weapons and helpful items such as heals from the dealer. There are security cameras that are on the look-out for any suspicious activity but can be destroyed stealthily by a skilled player.

STORY OVERVIEW

Starting from a simple robbery of a gas station convenience store, "The Player" quickly moves up the ladder and with the right equipment, high-end banks are ripe for the picking. All of this is essential of course, as the time frame in-order-to pay "Starman" creeps ever closer.

These robberies are not easy tasks of course, as the cops that occupy and guard these banks are no pushovers. Once discovered, "The Player" has limited time to escape with the loot before being knocked down by police.

While the story is quite simple, an opening cutscene helps set the dark, grimy tone of the game and the urgency of acquiring the money. Through the game's arms supplier, "The Dealer", small snippets of Starman's lore are discovered, helping you understand how a simple man became the monster that he is today.

While there is a definitive ending for the game, there is also an ending where the player is unable to pay back the money owed in time. This helps show players there is consequences and punishment for failing the task at hand.

GAME PROGRESSION

Initially the player starts off with just his fists, which do minimal damage to enemies. This helps encourage stealth as a full-frontal assault is not recommended with no equipment. Soon the player acquires a basic knife. This is an upgrade to damage, but it also comes with durability, meaning it has limited use before breaking. Again, this is to encourage stealth, but it gives the player a fighting chance in emergency situations.

After the first heist, "The Player" unlocks the shop, a sort of hub where items and weapons can be purchased from "The Dealer". These weapons include but are not limited to guns such as shotguns and pistols for a deadlier approach, and aluminium baseball bats for a heavy increase in melee damage.

Items include a lockpick, body armour for increased damage resistance, med-packs, and a power drill to break through heavy doors.

All of these are purchased with the money and collectibles stolen from the heists. These collectibles come in the form of gems, gold bars, coins, and cash that the player collects by walking over them during the heist.

These items and weapons make gameplay more varied as the number of approach and routes to take multiply exponentially. "The Player" must carefully balance buying upgrades to help him earn more money with the task of saving his money in-order-to pay back Starman.

SYSTEM MENUS

While designing the various system menus in A.D.D., we do not want to distract the player with copious amounts of unnecessary menus, which is why we made every menu as snappy and quick as possible. We want the main focus to be on the gameplay, to minimize the overall time spent in menus as much as possible so that our player gets as much entertainment by playing the game.

In the main menu, buttons for "START", "TUTORIAL", "CREDITS" and "EXIT" are present against a cinematic illustration. We want to make this visually pleasing.

There is a loadout menu in which you can equip/unequip your weapons. A 4 x 4 grid inventory is shown on the right with the player's avatar standing on the left. The "BACK" button is placed below the player and when itis pressed, it will send you back to the main game. The inventory shows every weapon that you have in your arsenal and currently equipped weapons will be visually marked with a border. To equip/unequip an item, players simply click on them.

We discussed this among ourselves and decided that the best option for our player was to go with that type of inventory. Something that displays full focus on the inventory when it is opened. We want our players to be focused on one thing while in the inventory menu. We also settled with the simplistic inventory design so that we do not go crazy or overboard on our design choices and make it visually unpleasing.

In the map selection screen, players will see icons of various stages that are available to them. By hovering over each icon, text will show up at the bottom of the screen, giving info about the stage such as how much loot is potentially available and potentially how dangerous it might be. It is important to us that the player is aware of the challenge ahead. We want our players to know what they are getting themselves into when starting a new level.