

# GAME DESIGN DOCUMENT



*Successfully pull-off heists by making a mad dash to the bank,  
evading obstacles and collecting loose change*

*There's money to be made!*



## General Summary

Ticking Time-Trials (TTT) is a fast-paced, 2D platformer in which you play as Destructo; a mobile bomb who has to run to the bank to blow it up and steal the cash inside. However, Destructo's fuse won't stay lit forever. He must make it to the bank before the fuse light reaches him and he explodes.

Master Destructo's abilities by running and jumping your way through increasingly difficult momentum-based platformer challenges and bypassing the banks increasing security.

## Genre

### **2D Platformer w/ Endless Runner influence**

TTT incorporates the pace and reflex based gameplay of endless runners while allowing the player to control the character like a 2D platformer with different movement speeds and analogue direction input. Also unlike endless runners, each level has a goal that you are trying to reach and a set of levels to beat to complete the game.

## Target Audience



My game aims to be as accessible as possible.


The simple control scheme and 'pick up and play' nature helps it appeal to mobile gamers and people who only manage to find time for a quick couple minutes of play. The majority of levels will aim to be under a minute long, making it suitable for short bursts such as on the bus or between tasks.

TTT takes on a cartoon aesthetic without being too cutesy as to not deter any age groups away from the game based on it's aesthetic.

## Characters & World

Devo and Destructo are a pair of international criminals driven by greed, mayhem and their unpaid rent. They spend most of their spare time stealing cash and blowing stuff up. They remain at large to this day.

Character	Description	Characteristics	Misc. Info
	<p>The Ringleader.</p> <p>Doesn't like getting his hands dirty but loves to reap all the rewards.</p>	<p>Devo deploys mobile bombs (Destructo) to do his dirty work, keeping a fair distance away from the action.</p> <p>In his eyes(?), a quick heist is a good heist.</p> <p>Manages their financial statements and tax returns.</p>	<p>The clock on his head syncs to Destructo's time 'till detonation.</p> <p>The location of his pupils are unknown to all.</p> <p>His name is an abbreviation of 'Devastation'.</p>
	<p>The Lackey.</p> <p>A disposable sentient bomb with the sole goal of getting money and making noise.</p> <p>Seems to always be in constant supply.</p>	<p>Hyper and determined.</p> <p>Utilises his athleticism to complete his task as quickly as possible.</p> <p>Only has a limited amount of time before automatically detonating.</p> <p>Enjoys the thrill of the action much more than the payout.</p>	<p>Can use his detonator to explode at will before his fuse does it for him.</p> <p>His name is an abbreviation of 'Destruction'.</p>

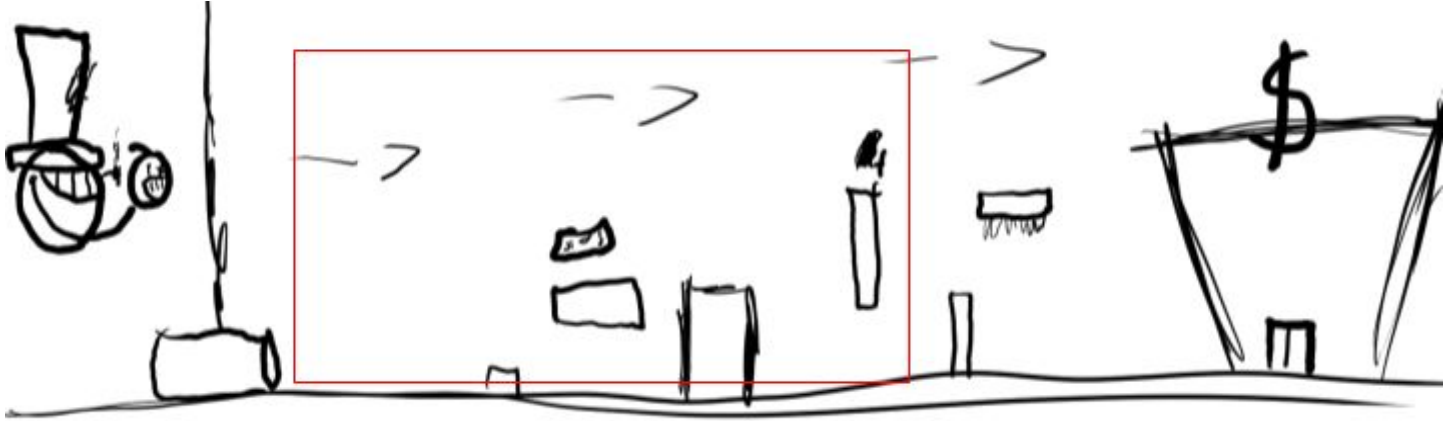
Character(?)	Description	Misc. Info
<p>The \$ Bank</p>  <p>DOLLAR \$IGN INCORPORATED</p>	<p>The Target.</p> <p>A chain of banks owned by Dollar Sign inc.; a faceless corporation that saves on costs by cutting other humans out of the equation.</p> <p>It's staff consists entirely of robots programmed with human data to perform the jobs that man would otherwise do.</p>	<p>Devo and Destructo's distaste for electronics make this specific bank chain their go-to place for a quick heist.</p>

## Gameplay

### Overview of Gameplay

#### Typical Gameplay Case Rundown

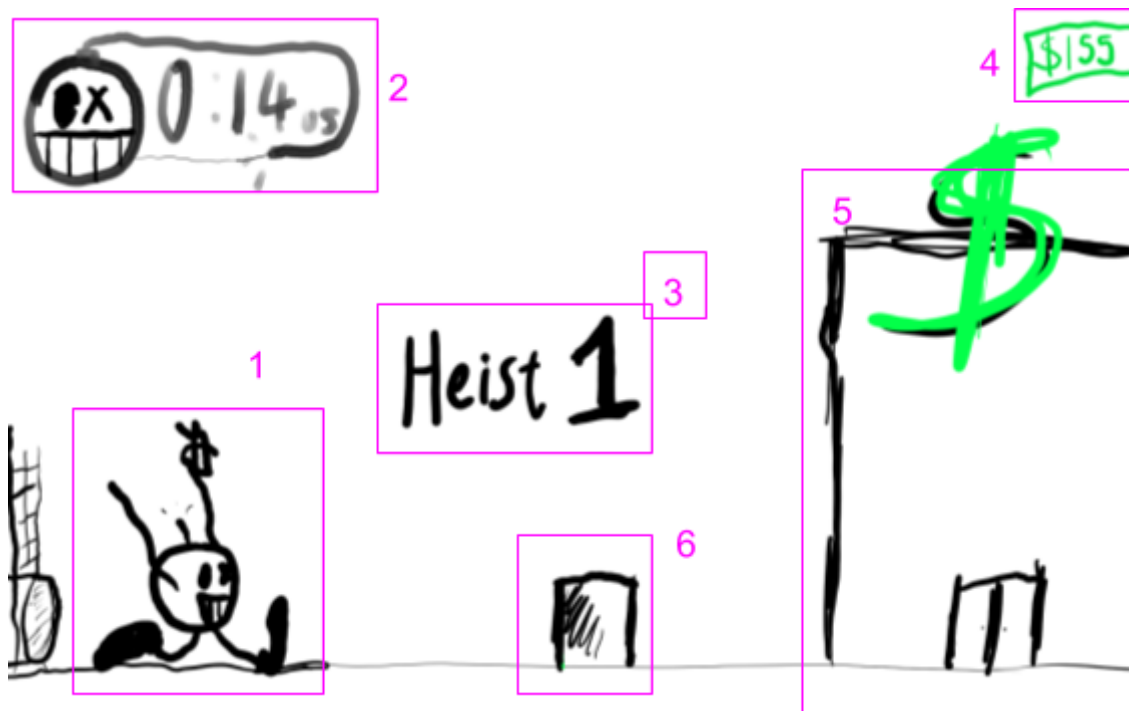
Upon loading a stage you will get a quick pan of the route to the bank before it pans back to you.



Devo will then light the fuse and roll Destructo through the pipe and the game will begin at a running start



## Game Screen Mock-Up



1. The Player (Destructo)
2. The timer HUD, indicates how much time you have left to complete the stage
3. Displays the level you are on at the start
4. Total cash count for that level
5. The bank, your goal
6. Level geometry

You take control of Destructo (1.) and must guide him to the end within the allotted time (2.) If you don't make it to the end in time, you will explode and miss the bank, forcing a restart. Restarting will be quick and take no longer than a second upon death. The little block in the middle (6.) is a simple example of level geometry that the player must maneuver over (jump) in order to reach the bank (5.).

## Player Experience (First Time)

Upon hitting the start button on the title screen for the first time, you will be taken straight to the first heist. The first few heists will consist of simple challenges to get you familiar with the controls; It won't explain how to play but it will allow a fair amount of time and well spaced out obstacles to get the player to learn.

(The player can pause the game if they want to change any options before playing.)

### World Map

The levels and The Black Market can be accessed from the world map/overworld, accessible upon loading a game (beyond the first time) or quitting to the menu during or after a heist. The shop will be a persistent icon in the top left and the levels will be like a map, with banks sitting on uncompleted heists and a flag icon bearing some artwork of Destructo on the banks that have been exploded (you can still replay these heists).



*The completed heist flag design*

### Level Design

The level design can mostly be summarized by three routes:

The upper route takes the most skill to reach, but greatly rewards the player with less hazards and better times.

The middle route is where you start and where you'll likely stay if you choose to play it safe. If you reach the high route but don't maintain it, you will fall to the middle path, giving you another chance to reach the top again.

The lower route is where you'll end up with repeated mistakes, the lower route is the slowest and has the most hazards getting in your way. It's easier to reach the middle from the lower than it is to reach the upper from the middle.

Level geometry will consist of flat platforms, walls and slopes (both curved and straight) that can be used to gain momentum.

### Gameplay Guidelines

- The player must always land on something when falling
  - No bottomless pits or unpredictable death traps e.g. unexpected spike traps
- Reward for skilled play is favoured over punishment for poor play
- Violence is limited to property damage
- Easy levels should aim to be around 1 minute for regular levels and 2 minutes for difficult ones

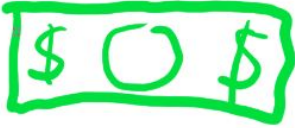
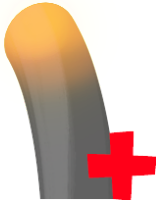
### Game Objectives & Rewards

Reward	Description
Ranks/Grades	To satisfy completionists, you are given a letter grade at the end based on how you did. This increases replayability of older levels and entices people to improve their skills. The higher the grade, the more money you get from it.
Ability Unlocks	New abilities are unlocked as you get further into the game that improve your character's athleticism and allow him to avoid more obstacles. These abilities can then be used to improve your time and rank on previous levels, encouraging replay of those levels.


Money	Money is earned by playing the game, the better you do the more you earn. It can then be used to upgrade your abilities which can improve your time. However the game will be designed in a way that it's possible to beat without any upgrades.
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## Interactive Elements

### Items

Item	Description
Loose Change (Money) 	On top of the cash reward gained from completing a heist; loose change can also be collected on the way to add to the total payout.  Cash can be used to purchase upgrades for your character at the black market.
Fuse Extender (Timer +) 	The Fuse Extender increases your "Time 'till Detonation" meter, giving you some extra time to reach the goal.

### Obstacles

Obstacle	Description
Environment and Level Geometry	A major obstacle in this game is the environment itself. Much like any 2D platformer; platforms of different shapes and sizes will test your abilities and sometimes get in your way. You can utilise the level geometry to gain momentum and new heights
Sticky Walls	Certain areas will have 'Sticky Walls' that allow you to climb and wall jump off of them. Alternatively, all walls may be jump/climbable
Spikes and other hazards 	Introduced in later levels Includes a wide variety of objects that serve the same purpose  They will cause you to explode and restart the heist

## Controls and Abilities

(button mappings are based on an Xbox 360 controller)

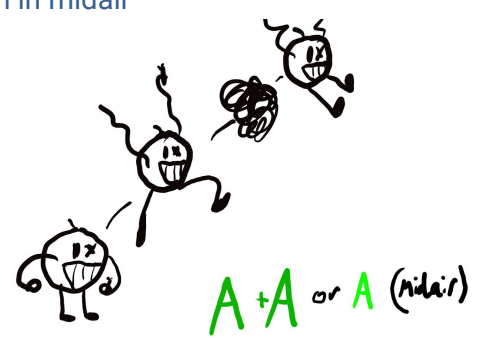
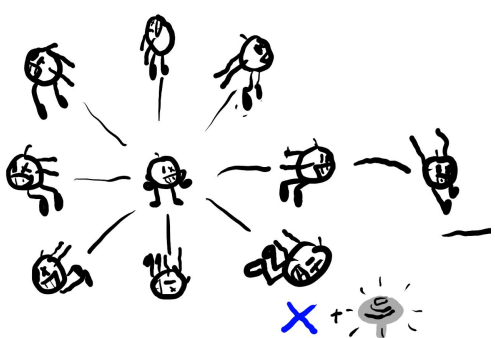
### Stock Controls

At the beginning you will have only the jump button and left and right movement

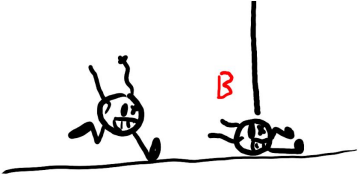
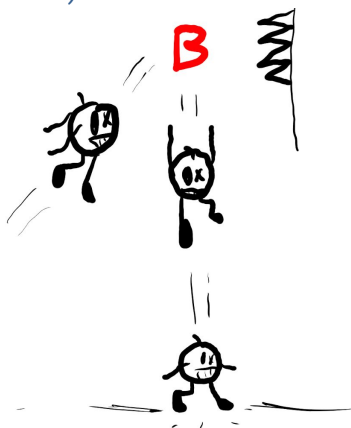
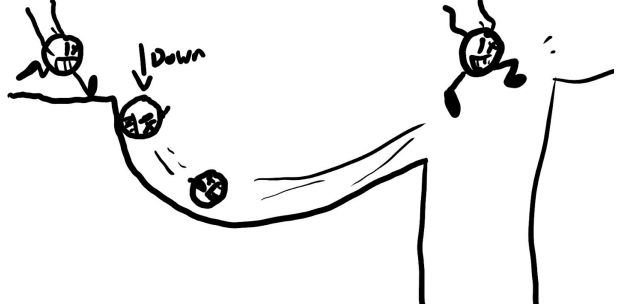
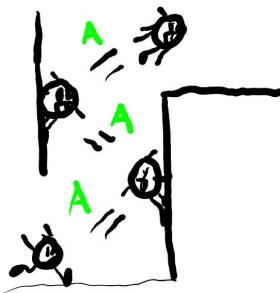

Obstacle	Description
<b>Movement</b>	<p>Use the analogue stick or directional keys to go forward or backward.  Movement is momentum based so you will start slow and quickly pick up speed by running.  When using the analogue stick, run speed is based on how far the stick is pushed.</p> <p>Top speed can't be gained just from running in a straight line, the level geometry will have to be used to gain the momentum needed.</p>
<b>Jump</b>	<p>Press the A button to jump.  Jump can still be used after falling off a platform  Jump height is based on how long the A button is held within a one second time frame  (e.g. Tapping the A button will perform a short hop and holding it for one second will give you the maximum jump height)</p>

### Unlockable Abilities

Abilities will be unlocked as you play and be assigned to different buttons

Ability	Description	Demonstration
<b>Double Jump</b>	Creates a tiny explosion that provides an additional midair jump.	<p>A Button in midair</p> 
<b>Dash</b>	<p>Performs a short dash based on the direction being pushed (8-Directional).</p> <p>Can't jump or dash again until hitting the ground after performing a dash</p> <p>The dash has no arch but momentum is retained.</p>	<p>X Button + Direction</p> 

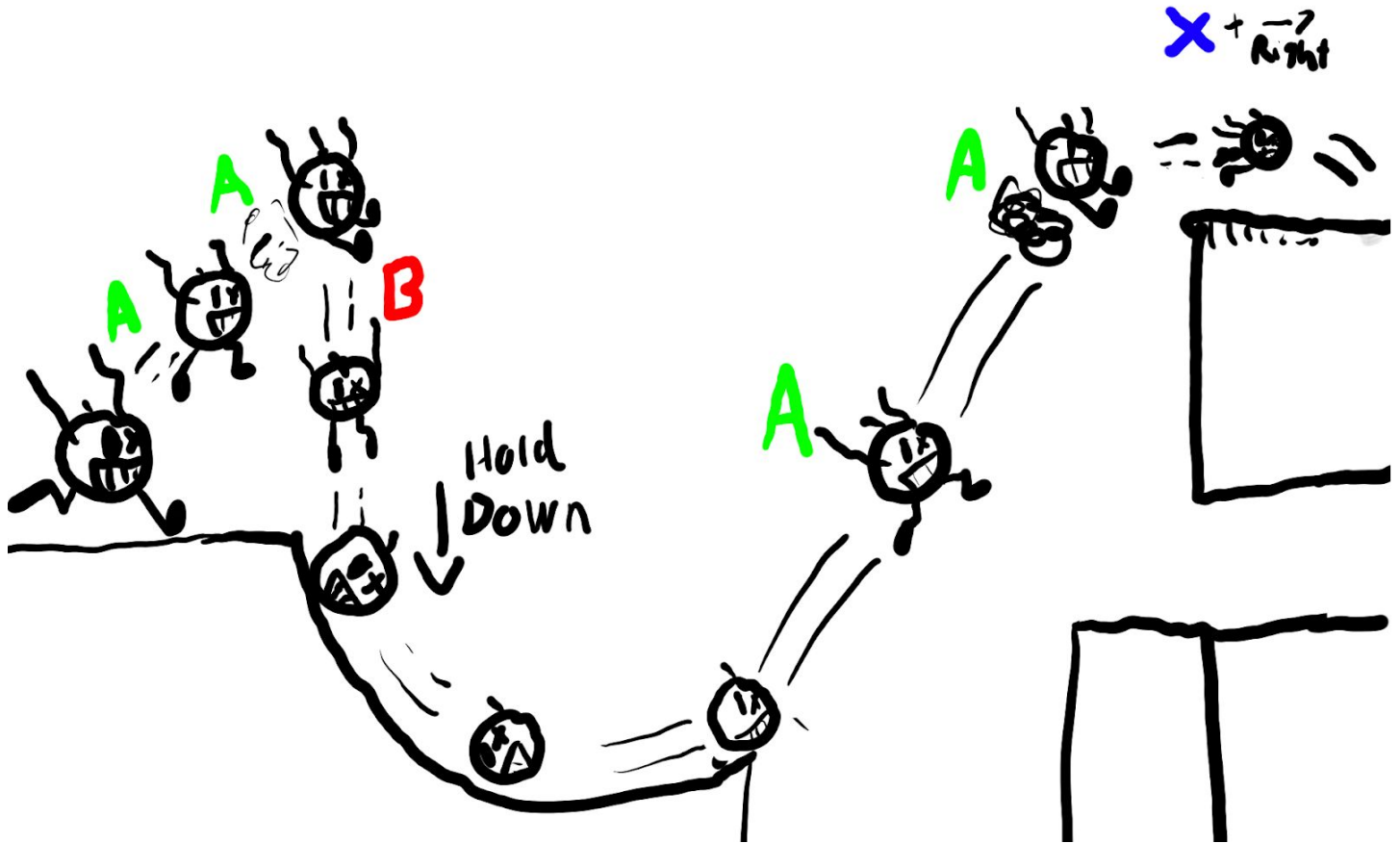


<p>Duck/Slide</p>	<p>Allows you to slide under obstacles that are otherwise in your way</p>	<p>B Button (while running)</p> 
<p>Stomp</p>	<p>Allows you to quickly stomp to the ground on a dime while in midair</p> <p>Useful for avoiding oncoming hazards in the air and landing on platforms</p>	<p>B Button (in midair)</p> 
<p>Roll</p>	<p>Gain momentum on slopes by rolling into a ball.</p> <p>Replicates light bowling ball properties</p> <p>Allows you to reach new heights</p>	<p>Down (running on the ground/standing on a slope.)</p> 
<p>Wall Jump/Climb</p>	<p>Can be performed on sticky walls. Jumping at a sticky wall will stick you to it, if nothing is pressed you will slowly slip down.</p> <p>Climbing will take you slowly up</p> <p>Wall Jump will dash you in the opposite direction to the wall</p> <p>Climbing is slower but can sometimes be better under certain circumstances.</p>	<div> <p>JUMP: A Button (sticky wall)</p>  <p>JUMP</p> </div> <div> <p>CLIMB: Up (sticky wall)</p>  <p>CLIMB</p> </div>

### Chaining Abilities

Multiple abilities can be utilised in succession with each other to create interesting ways to improve your run and gain access to new areas.

Example:






1. Starts by double jumping to gain height
2. Stomps at the peak of the jump to hit the slope
3. Holds the down direction while stomping to roll into a ball and gain huge momentum upon hitting the slope
4. Double jumps again at the peak of the height gained by the momentum to gain further height
5. Dashes right to reach the highest and quickest route

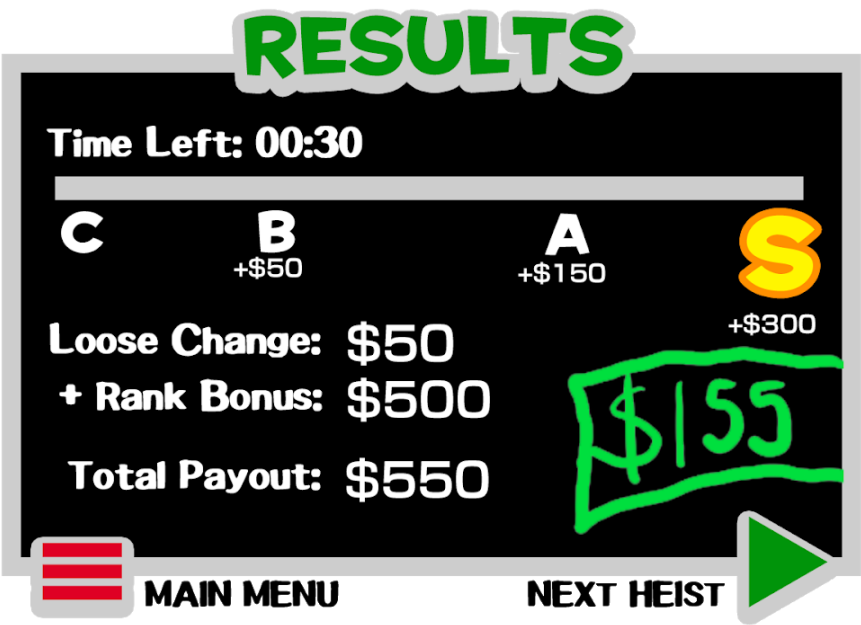
### Art Style

TTT will take on a cartoony approach with 2-tone shading for characters and gradients for background elements, similar to how in 2D animation, things that are animated are usually flat colours where the still elements are highly detailed matte paintings. The assets will be slightly art-deco inspired giving you that stage play kind of feel. The cartoony but not too childish approach to art style and character design helps to not deter any potential age groups from the game based on its aesthetic.

### User Interface

#### HUD

Element	Description
<p>Time 'till Detonation/Fuse</p> 	<p>The primary HUD element is the “Time ‘till Detonation” meter; displaying how much time you have to complete the stage before automatically exploding</p> <p>Displays the time at the top left with a digital clock and a real-time fuse that gets shorter as time decreases.</p>
<p>Current Cash</p> 	<p>Counts your current heist earnings at the top right</p>
<p>Progress Bar</p> 	<p>A bar in the top middle that shows how close you are to the bank</p>



Element	Description
Results Menu	At the end of each successful heist your rank will be given based on how quickly you completed the heist and will then tally up your total earnings for that heist then add them to your total cash. (design subject to change)

