



# Pokémon Card Coliseum

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# Presentation Overview

- Pokémon TCG Overview
- Project Design
  - Hardware
  - Software
- Design Analysis
  - Advantages/Disadvantages
  - Market
  - Cost
- Schedule
- Summary



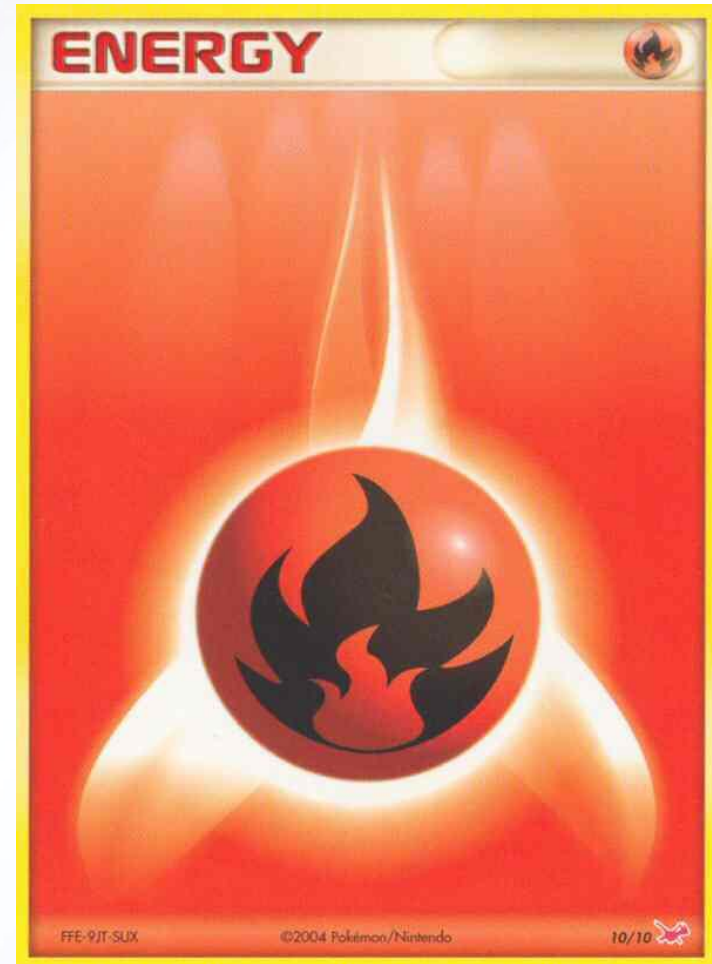
# Trading Card Objectives

- Object of the Game:
  - Collect all prize cards
  - Defeat all enemy Pokémon
- You lose if...
  - No more cards in deck
  - All Pokémon defeated

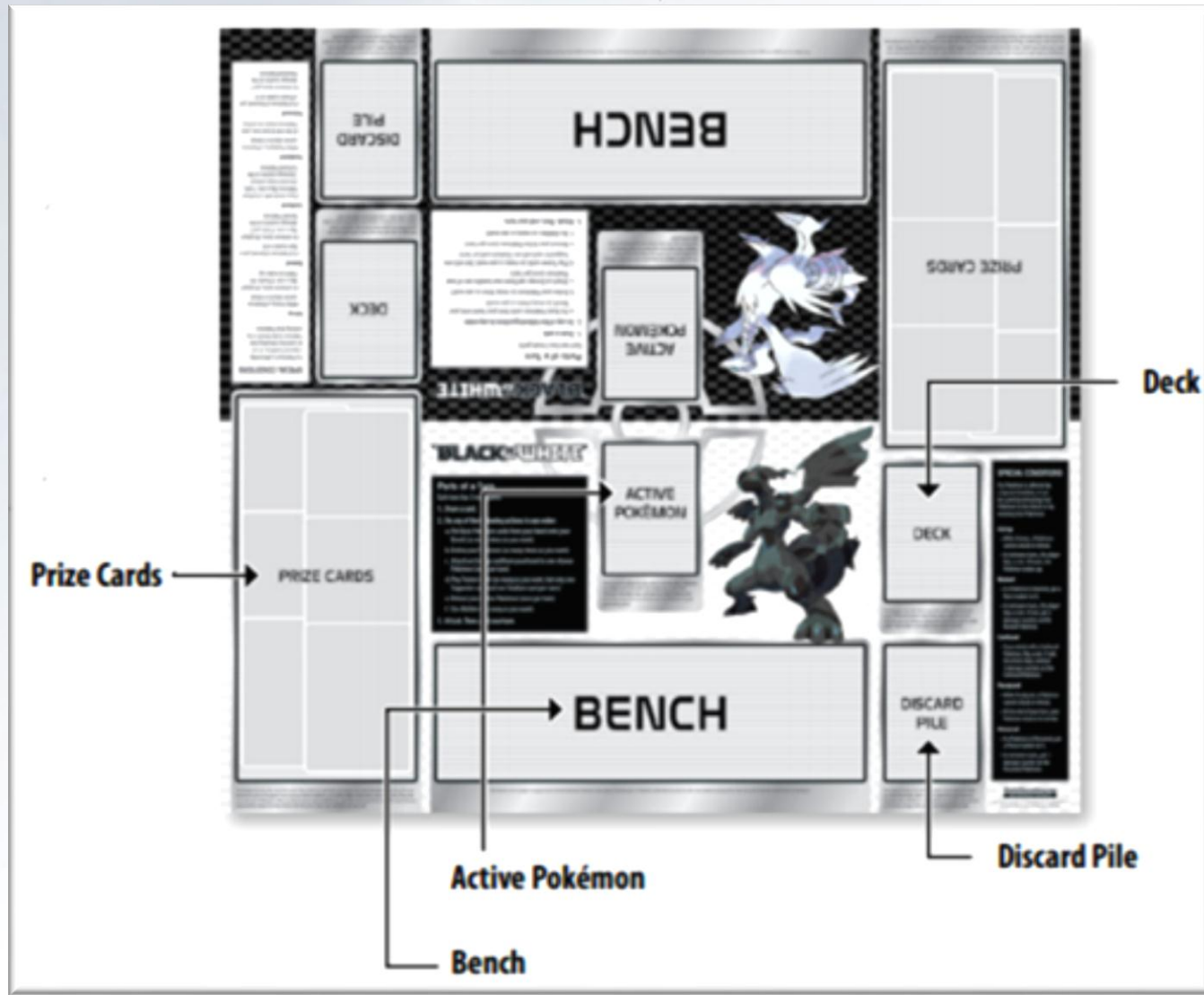




# The Pokémon Card



# Zones of the Pokémon TCG



# Typical TCG Setup



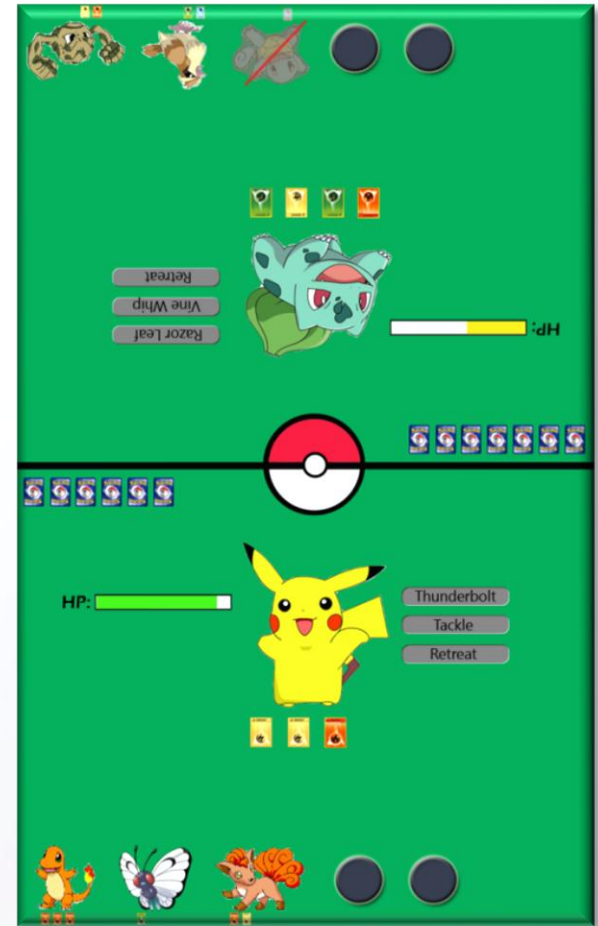


# Project Mock-Up



# Project Features

- Exciting and immersive user experience
- Reduces physical clutter
- Feedback to players






# Hardware Design Schematic

Major components:

- Samsung Galaxy Tab 10.1 (30-pin input)
- USB Adapter
- USB RFID Reader



# Hardware Design

- RFID Reader (125kHz)
  - Detects RFID tags (2-5 inch range)
  - Powered by tablet through adapter
- RFID Tag
  - Carries unique 10 digit ID
  - 54mm x 85mm
- USB Adapter 
  - 30-pin input connects to tablet



# Hardware Design (cont.)

- Communication Protocol
  - Software app to reads data stream via Virtual COM Port
  - Transmits unique 10 digit ID (12 byte ASCII string)

Start Byte	1	2	3	4	5	6	7	8	9	10	Stop Byte
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# Hardware Design Issues

- User can't play the game and power tablet simultaneously

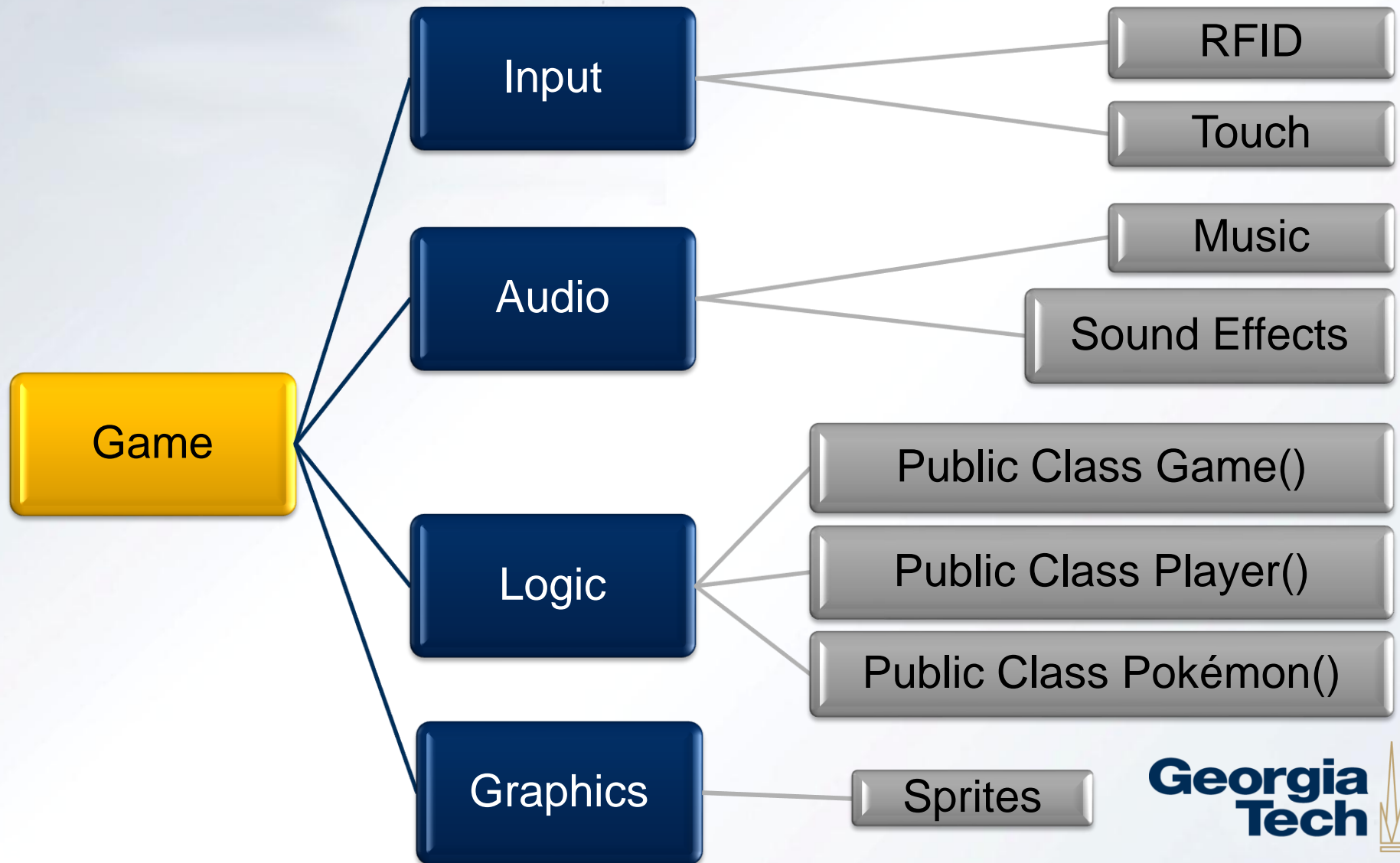


# Software Design Platform

- Development Platform:
  - Java 1.6
  - Android 3.1 SDK (12 API)
  - Eclipse + EGit plugin



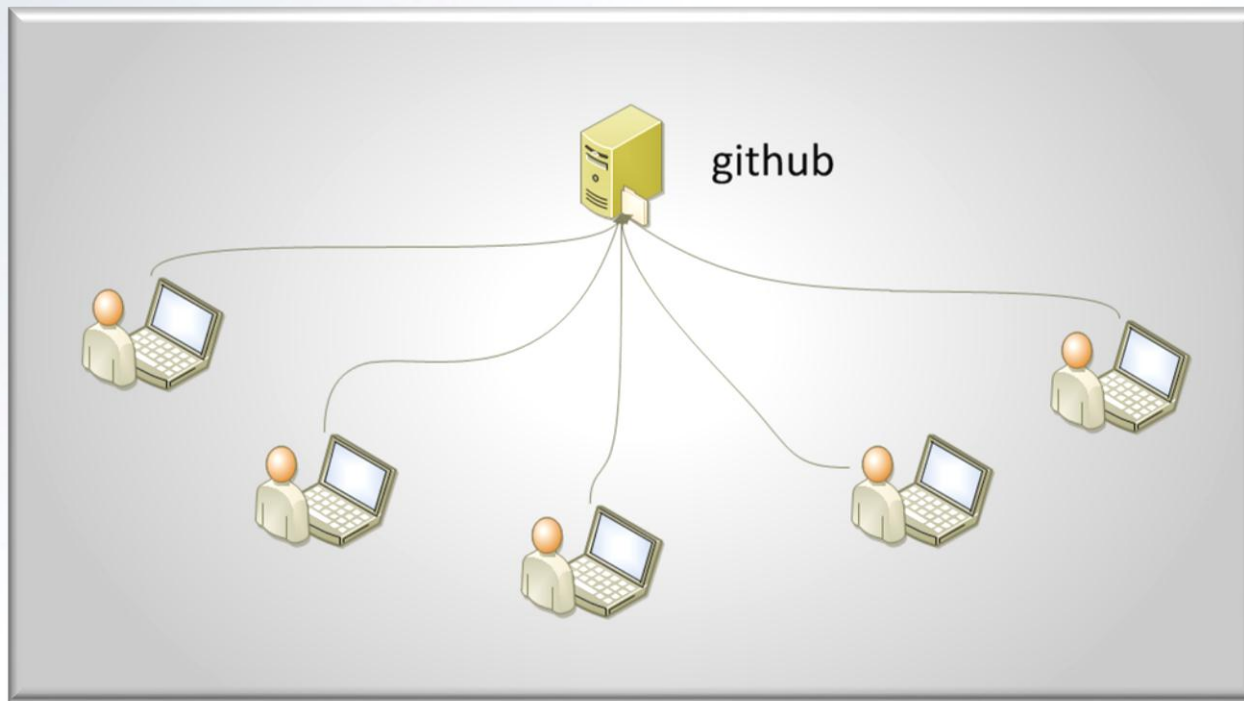
# Software Design Schematic





# Source Control Software

- Git repository hosted on github
- Safety via data redundancy



# Software Design Issues

- Automated testing procedure
- Fast algorithms for responsiveness
- libGDX game development framework
  - Fast desktop and mobile testing
  - Button display problem



# Design Advantages and Disadvantages

## Advantages

- Eliminates extra pieces and cards
- Teaches game rules
- Builds on existing consumer base
- Integrates upcoming technology

## Disadvantages

- Can't use with existing Pokémon cards
- Android platform only
- Tablet can't be charged while playing





# Market Analysis

- Targets children ages 6-18  
...who want to be Pokémon masters
- Pokémon Card Coliseum's success will hinge on:



- Creating new experience
- Catering to existing users
- Improving gameplay

# Cost Analysis: Development

Total Non-Recurring Cost	\$103,083
Overhead (200%)	\$206,167
<b>Total Development Cost</b>	<b>\$309,250</b>

Total Units Sold	100,000
<b>Development Cost Per Unit</b>	<b>\$3.09</b>

- Development costs include allocations for
  - 2 engineers
  - 2 programmers
  - 4 non-engineersover the course of 7 months

# Cost Analysis: Revenue & Costs

	Year 1	Year 2	Year 3	Year 4
Sales Volume (units)	20,000	50,000	30,000	5,000
Unit Price	\$100	\$120	\$125	\$110
<b>Sales Revenue</b>	<b>\$2,000,000</b>	<b>\$6,000,000</b>	<b>\$3,750,000</b>	<b>\$550,000</b>

	Year 1	Year 2	Year 3	Year 4
Non-Re Cost per unit	\$3.09	\$3.09	\$3.09	\$3.09
<b>Non-Re Cost</b>	<b>\$61,850</b>	<b>\$154,625</b>	<b>\$92,775</b>	<b>\$15,463</b>

<b>Research and Development</b>	Year 1	Year 2	Year 3	Year 4
Redesign	\$2,500	\$2,500	-	-
Change Order	\$10,000	\$10,000	-	-



# Cost Analysis: Summary

	Year 1	Year 2	Year 3	Year 4
Total Cost Per Year	\$700,000	\$1,850,000	\$1,020,000	\$160,000
Overhead (150%)	\$1,050,000	\$2,775,000	\$1,530,000	\$240,000
Adjusted Cost	\$1,750,000	\$4,625,000	\$2,550,000	\$400,000

Adjusted Cost Per Unit	\$87.50	\$92.50	\$85.00	\$80.00
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Total Profit Per Year	\$250,000	\$1,375,000	\$1,200,000	\$150,000
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Profit Per Unit	\$12.50	\$27.50	\$40.00	\$30.00
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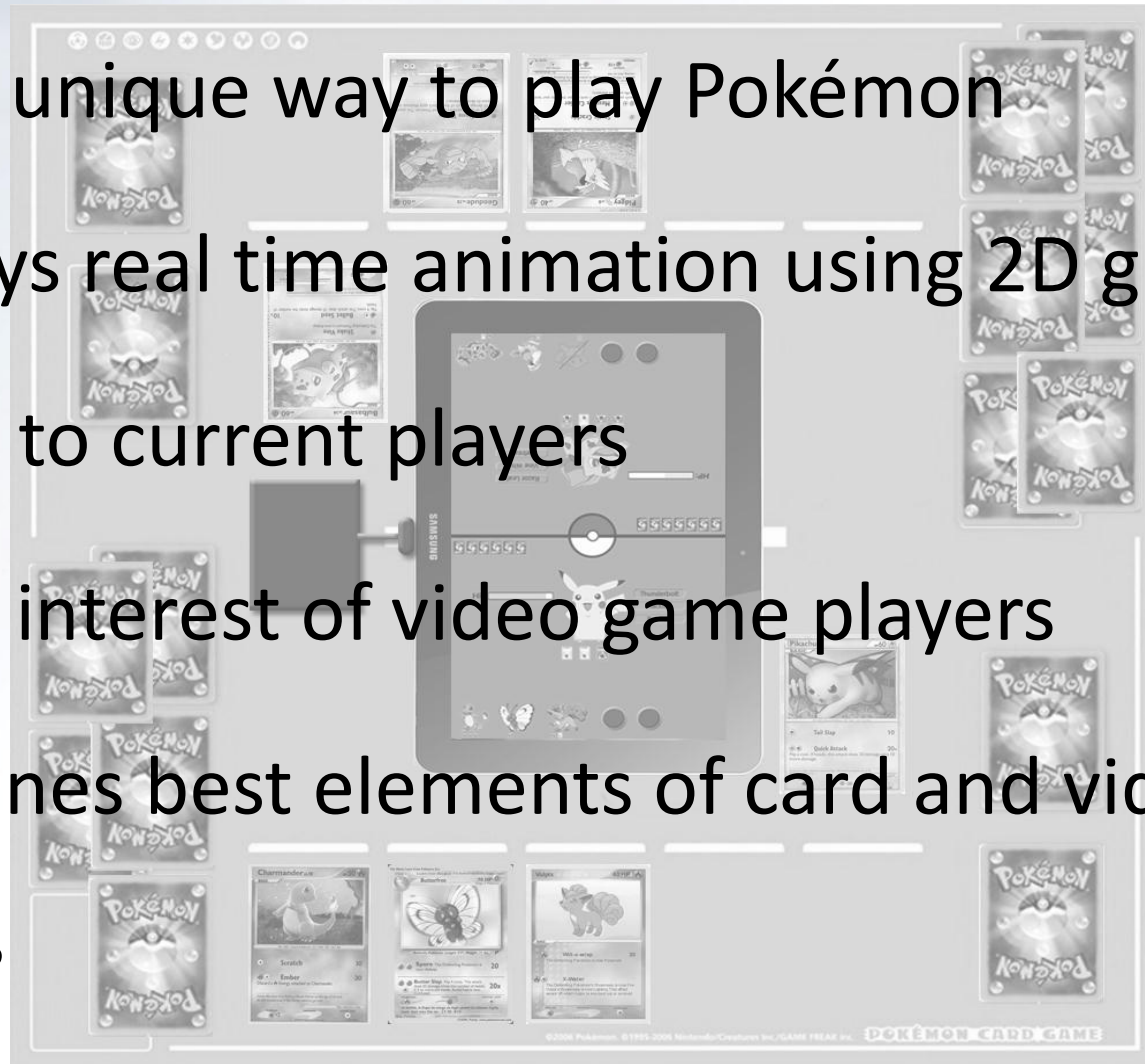
<b>Total Profit</b>	<b>\$2,975,000</b>
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# Upcoming Project Milestones

- Current Status
  - Ordering Parts
  - Finalizing Design
- Milestones & Deadlines
  - March 4<sup>th</sup>
    - Preliminary Mat Prototype Deadline
  - April 28<sup>th</sup>
    - Application Design Deadline
  - May 4<sup>th</sup>
    - Project Completion Deadline

# Pokémon Card Coliseum

- Offers unique way to play Pokémon
- Displays real time animation using 2D graphics
- Caters to current players
- Draws interest of video game players
- Combines best elements of card and video games



# Questions?

