# SpellCraft

## Concept and Design

Tony Gupta, Ian Kreger, Michael Wong

# Table of Contents


01 Overview

02 Design

03 Progress

04 Tasks

# 01

# Project Overview

# About SpellCraft

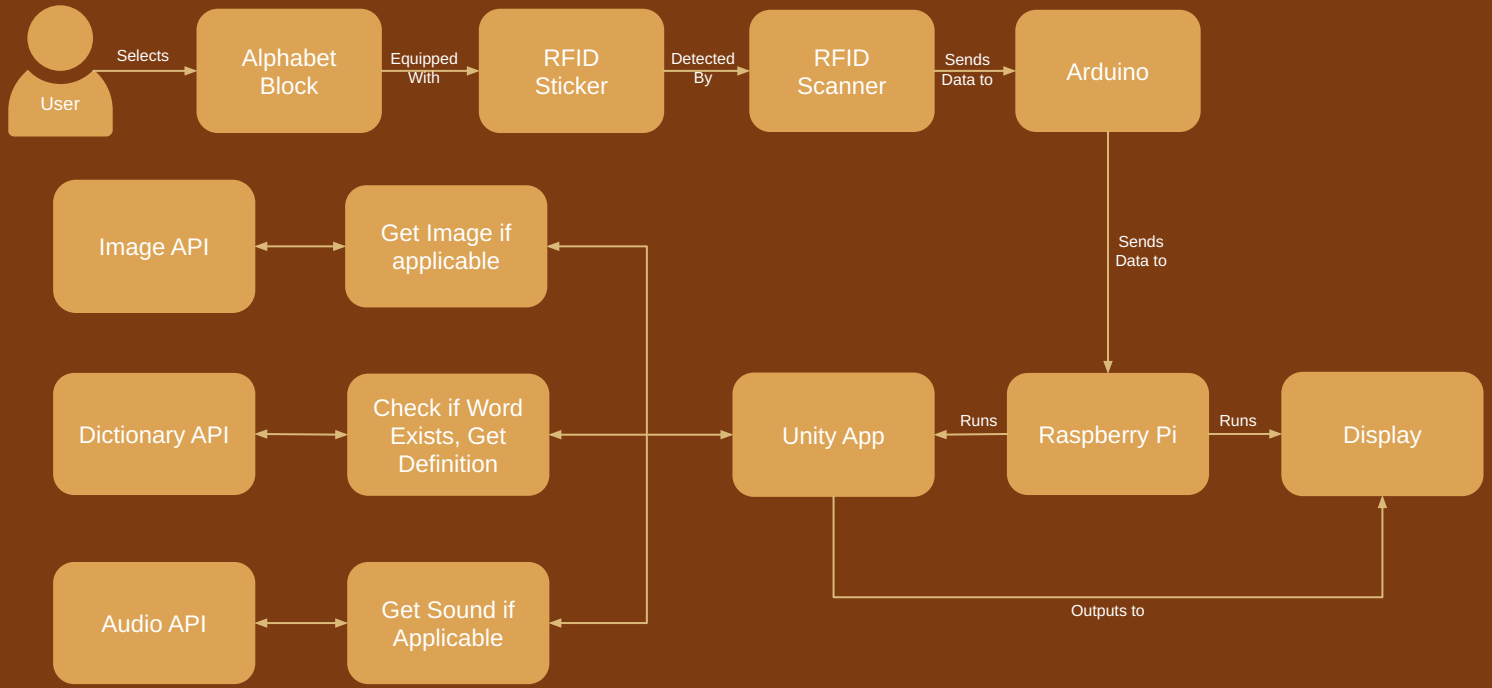
- Augmenting Montessori Education
- Tangible User Interface
- Utilizing RFID technology

# 02

# Project Designs

# Architecture Diagram

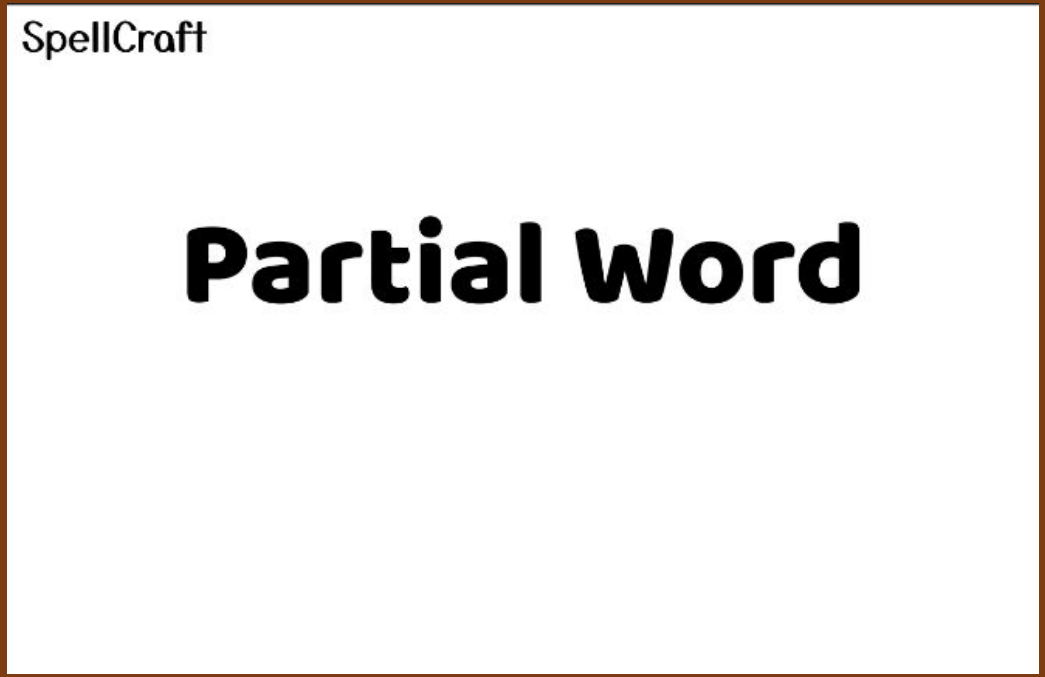
# Architecture Diagram



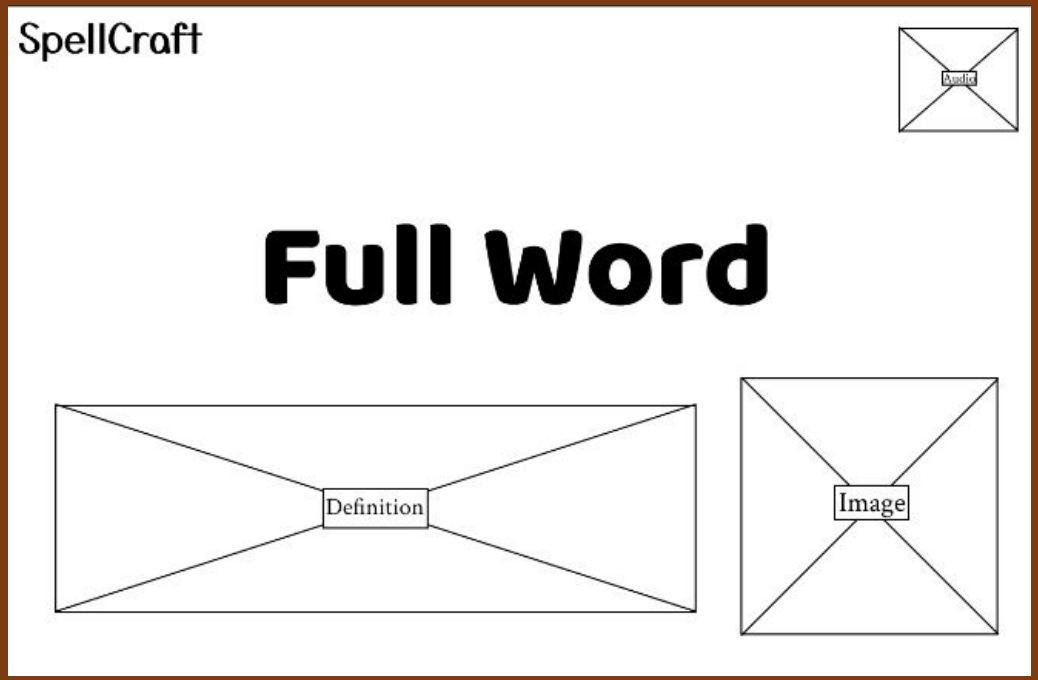
# UI Designs

# UI Designs—Start Screen

# UI Designs—While Crafting a Word



# UI Designs—Word Crafted Screen




**Other Variations**

- Words without audio
- Words without images
- Words without audio and images
- Words with multiple definitions

# 03

# Project Progress

# Research

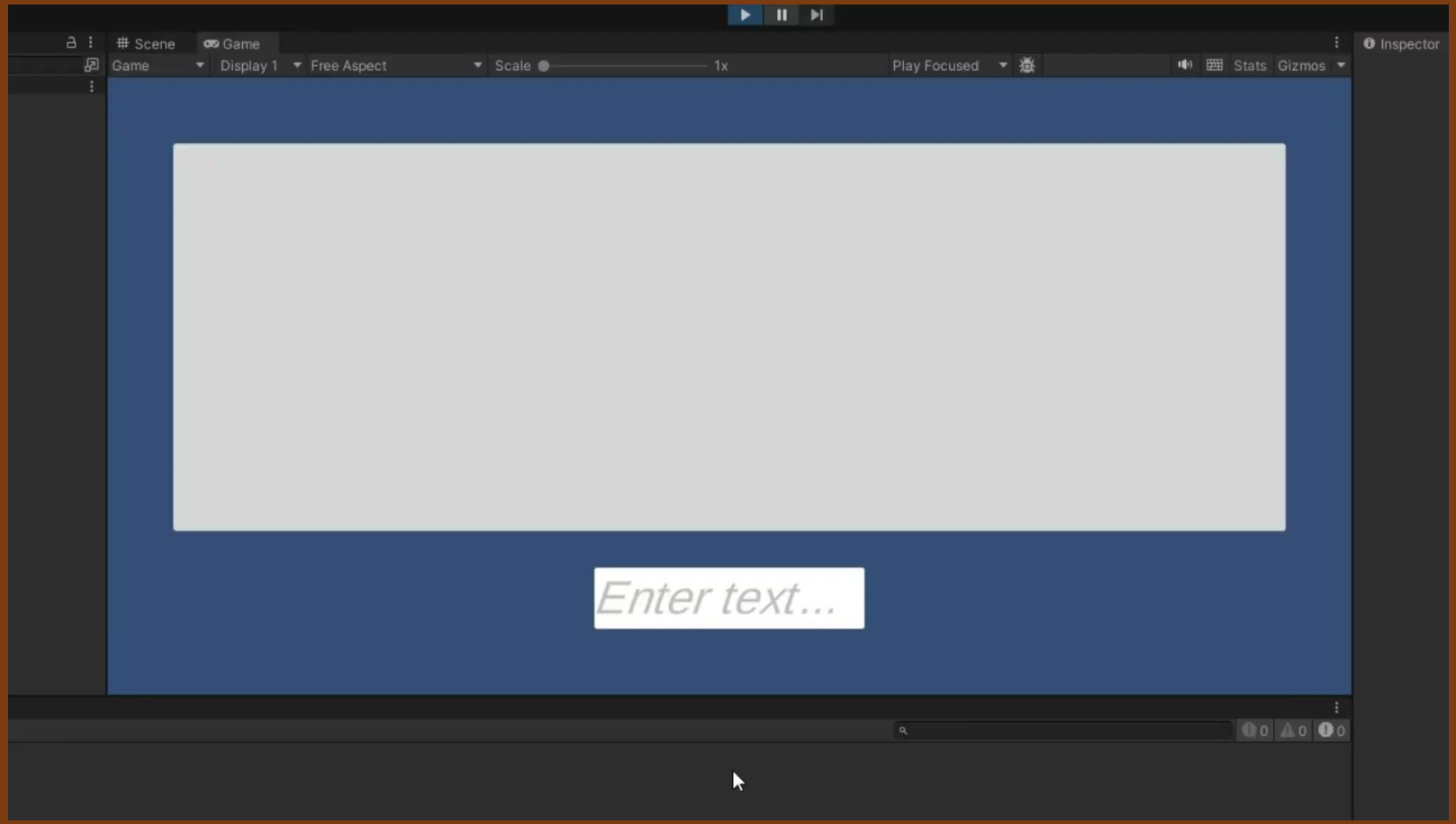
All hardware has been researched and is awaiting approval and shipment.

## Materials

- 1 Arduino Mega 2560 Rev3
- 10 RC522 RFID Scanners
- 100 RFID Sticker Tags
- 1 Raspberry Pi 4 Model B
- 1 7-inch Display
- 3 Wooden Alphabet Block Sets
- Wood, etc. for Desk Enclosure

# UI Mockup

SpellCraft
DOG
Def. 1 - (Noun) A mammal, Canis familiaris or Canis lupus familiaris, that has been domesticated for thousands of years


Scene
Game
Game
Display 1
Free Aspect
Scale
1x
Play Focused
Stats
Gizmos
Inspector
Enter text...
0
0
0

# 04

# Individual Tasks

# Individual Tasks

## Tony

Build and test RFID-Arduino assembly, send this information over serial to Unity, translate data into letter inputs in Unity

## Ian

Finish and Polish the SpellCraft UI and create the connection between RFID tags and Unity

## Michael

Working on refining dictionary API integration and including a source for images/sounds

# Thanks!

**CREDITS:** This presentation template was created by **Slidesgo**, and includes icons by **Flaticon**, and infographics & images by **Freepik**

Please keep this slide for attribution