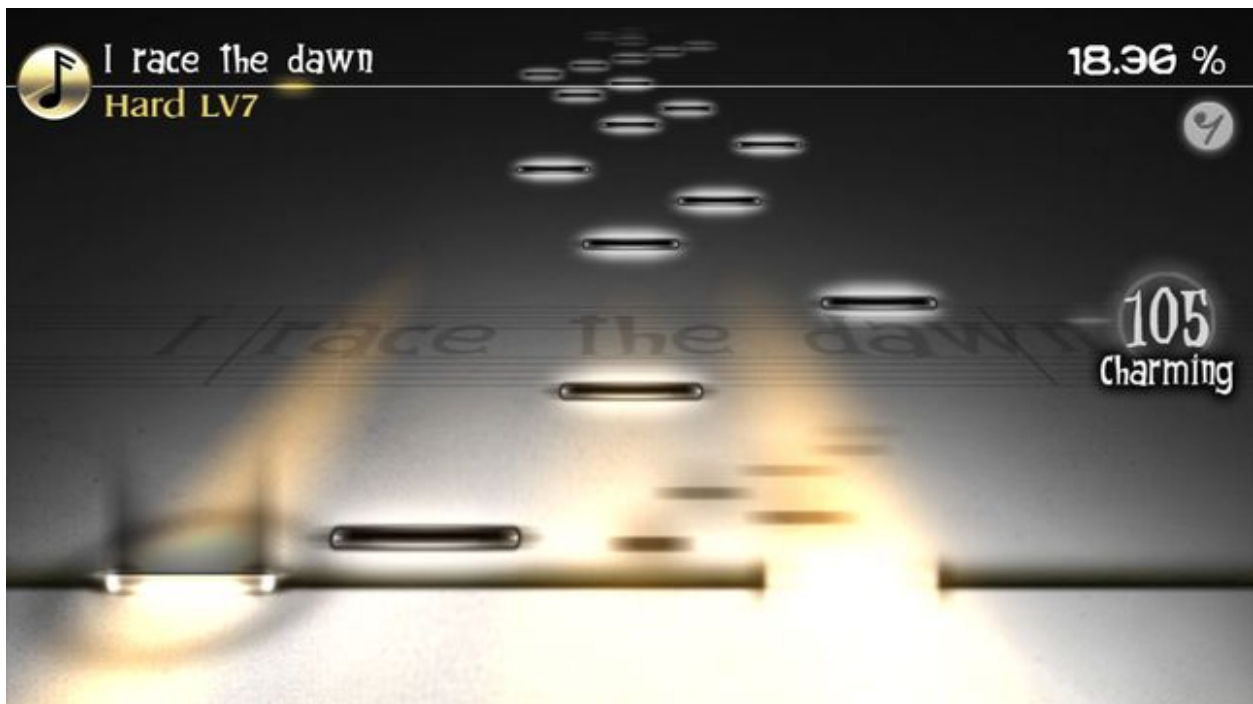


CS120B Project Proposal

Custom Project: Rhythm Game - DDR-like

Introduction

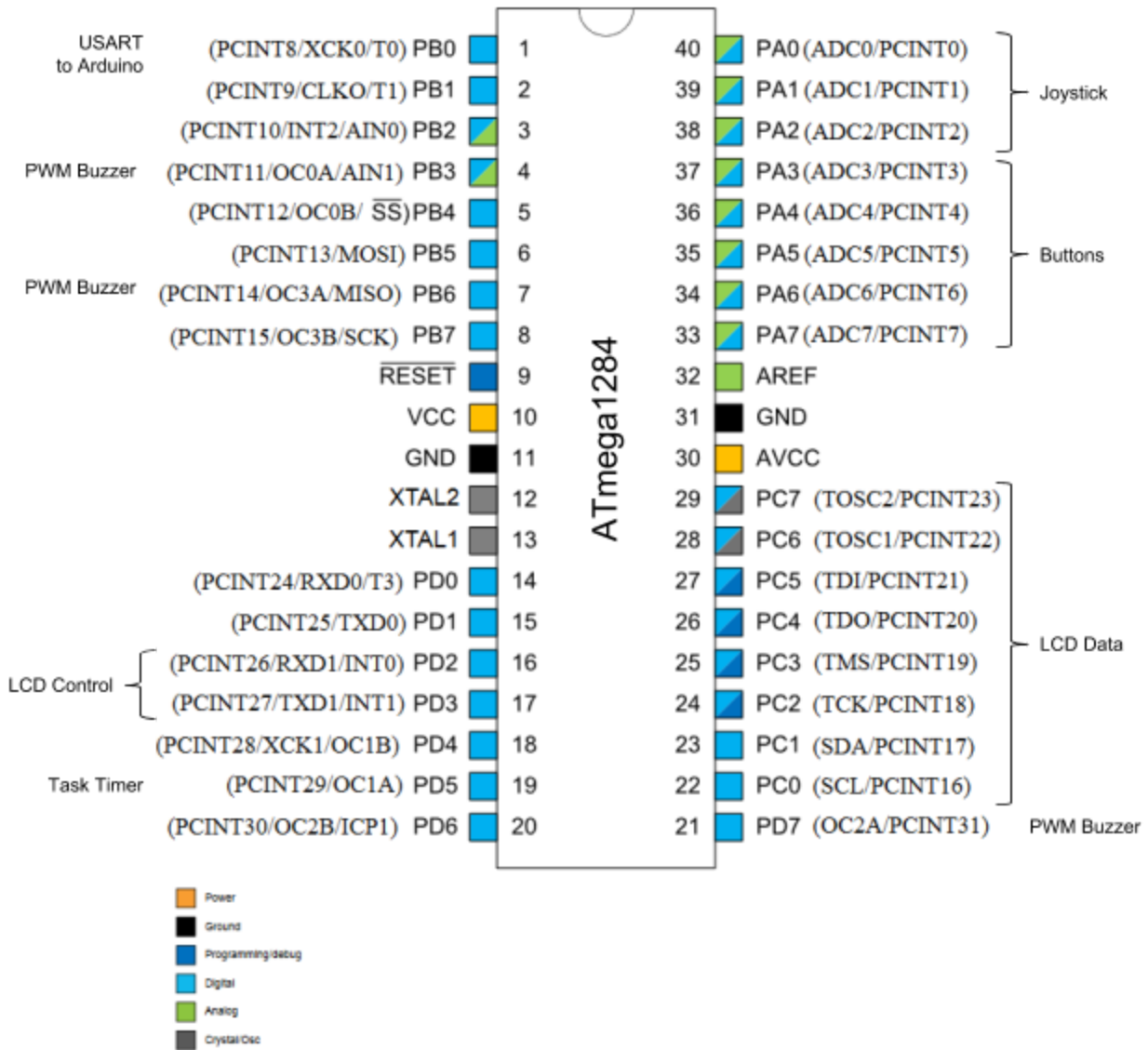
DDR (Dance Dance Revolution) is a rhythm game where sequences of arrows scroll across the screen while the player steps on the button corresponding to the arrow. The arrow sequences are played in time with a music track. Players aim to hit the sequences accurately to maintain a combo meter and score points for hitting beats accurately and maintaining their combo.



Components

- Inputs
 - Joystick
 - Buttons corresponding to the rhythm map
- Outputs
 - LCD1602 - For displaying the menu and high score
 - 16x32 RGB LED Matrix - For displaying the rhythm sequences
 - Piezzo Buzzers for music

- ATmega1284 Pin Layout



Complexities/Build-Upons

- Joystick to navigate the menu/interact with the game
- Displaying custom characters to the LCD to allow for kanji
- Using EEPROM to save the high score and combo
- Using USART to connect to Arduino (which runs the LED Matrix)