CHESS WHISPERER

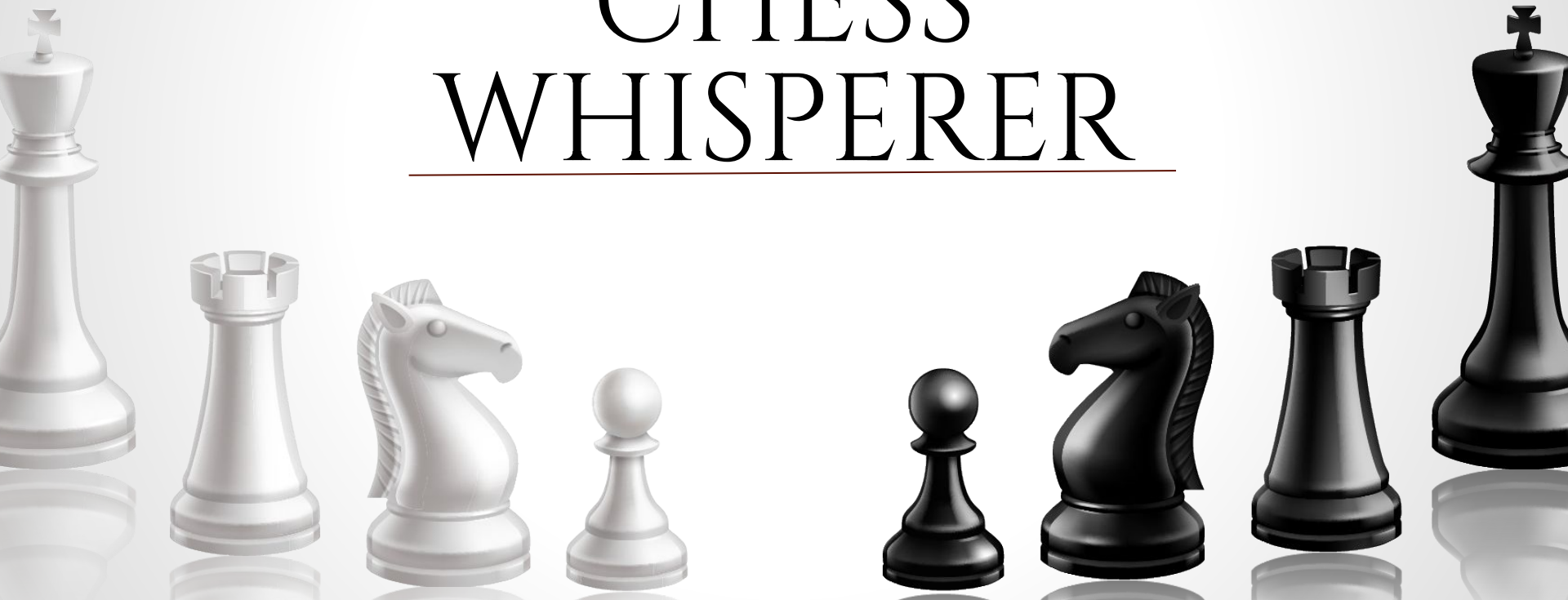
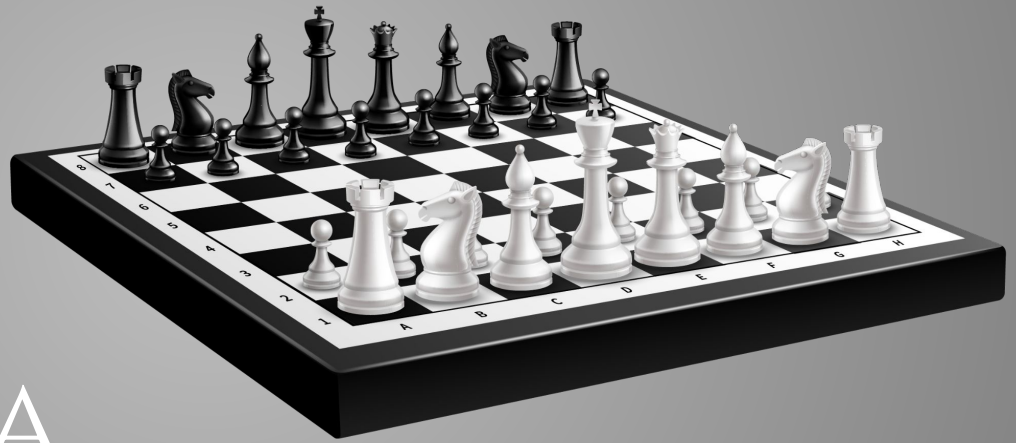


TABLE OF CONTENT

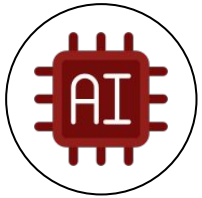
01

Main Idea

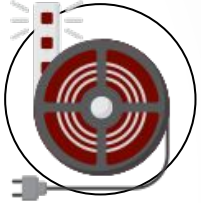


FEATURES

AUTOMATED



AI



EDUCATIONAL




HARDWARE MODULES

XY Movement

Stepper Motor NEMA17

XY Movement

YS-DIV Driver

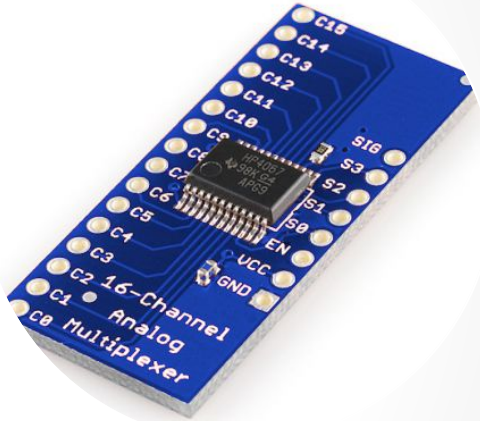
XY Movement

Electromagnet

XY Movement

Limit Switch

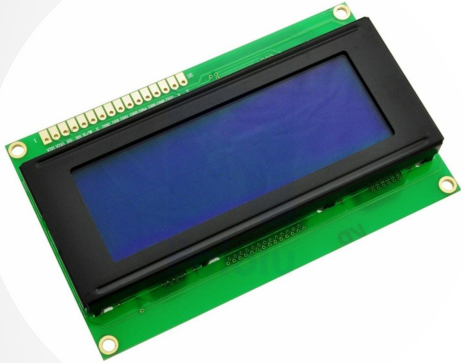
SENSORS AND MULTIPLEXERS

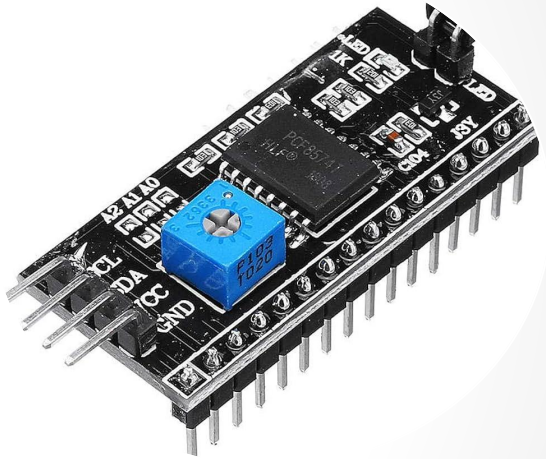


Reed Switches

16-Channel analog multiplexer

Input/Output Devices

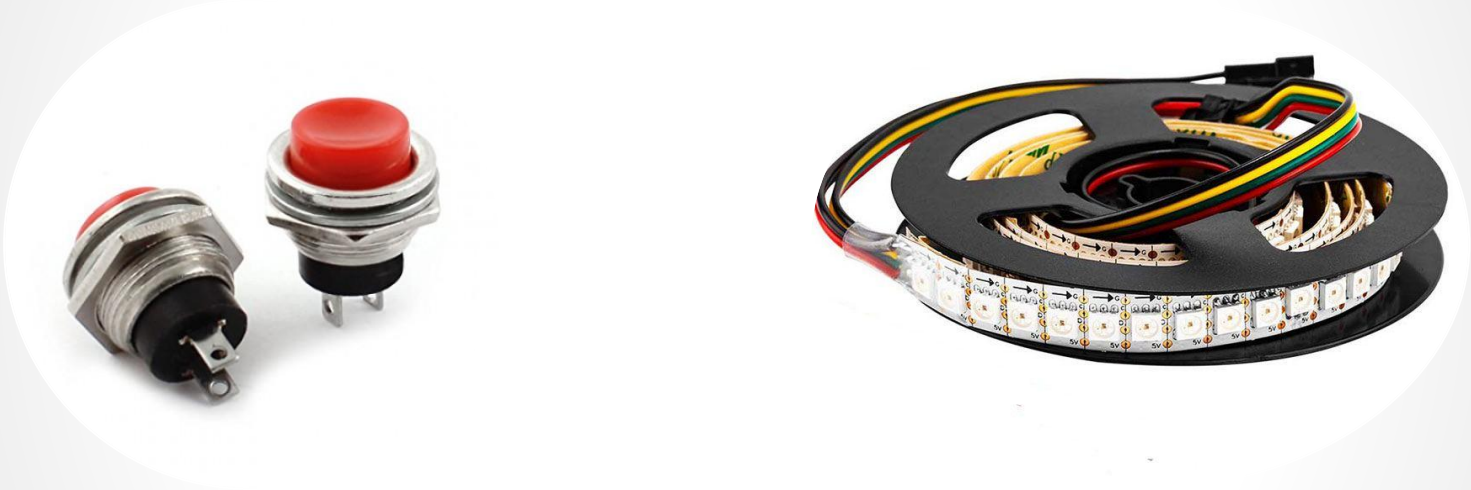




LCD

I2C

Input/Output Devices



Push Button

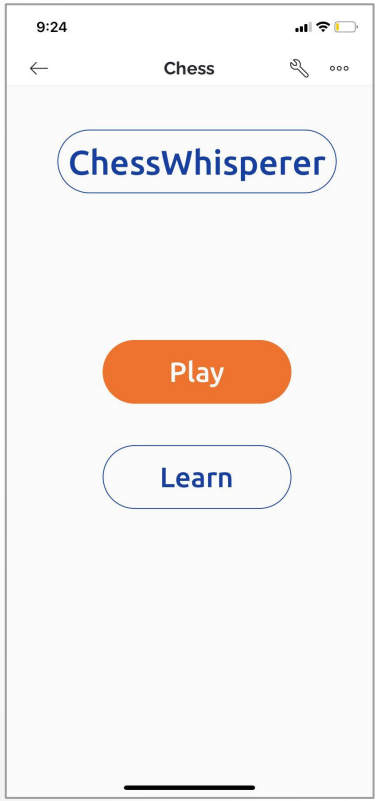
Addressable rgb led strip

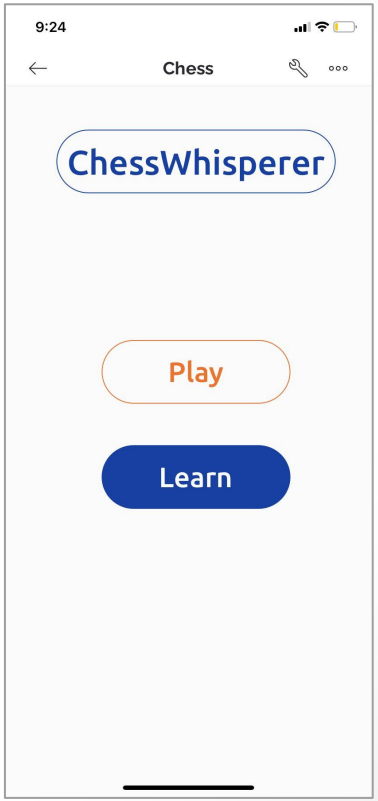
Microcontrollers

Arduino Mega

ESP32

Mobile Application





CONSTRAINTS

01 — Lack and high cost of hardware modules.

02 — Reed sensors are very sensitive and could break easily.

03 — The muxes are not practical and gives wrong outputs after using for some period of time.

04 — Very complex wiring for the sensors and addressable rgb leds.

FUTURE WORK

Make the learning mode more advanced, by lifting any chess piece and turn on the leds for the possible moves.

Switching from reed sensors to hall effect.

Develop our application.

THANK YOU!

Any Questions?