

Online Physical Chess

# OP Chess Vision

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## The Problem

If you're a Chess lover, you will find yourself playing a lot of online Chess since it has so much availability and player diversity. But playing Chess with the mouse and keyboard is not fun at all!

Imagine yourself as a car racer trying to find a way to practice and improve your skills. Would you rather go inside a real car in an actual racetrack, or enter a virtual race game? That's why playing Chess on a real Chess board with real Chess pieces is much more pleasurable than its online counterpart!

# The Solution

A Smart physical Chess board which will let you play hands-on with real Chess pieces on an actual board, while allowing you to compete with your online community or a distant chess player with another smart board, or even match a Chess bot.

## Basic idea and technologies

Our Chess board will have a mechanism which will allow the opponent's pieces to move by themselves or will tell us how to move the opponent pieces at their turn using on-board indicators. We will achieve this by using a microprocessor (Arduino – C++) that we will program.

Apart from the game itself the board will be equipped with a teacher mode which will be used to teach the user how to play Chess and learn new strategies.

Also, the board will have some Chess quizzes and extra modes to enjoy it as much as possible.

The board will be connected via USB to either a PC or a mobile phone. Which there we will display a beautiful GUI (Web based on PC and Android Application on mobile) with all the control and settings to be used with the board.

The phone or PC will Supply the board with the needed electricity.

We will create an API (python) to be used to connect to an already established online Chess communities like Chess.com, so that we will be able to play with the board against real players 24/7! Our API will also contain an AI Chess bot that will match its level for your level as you play along in bot-mode.