Carrom Playing Bot

Introduction :

This is a bot capable of playing the game carrom. It tracks the positions of holes and coins with every shot, decides the angle, cut and power of the shot.

Design:

The bot will basically be a robotic arm sliding on a rod attached to the side of the carrom board.
Through a camera and image processing, it will estimate the position of each coin on the board.
For an accurate straight shot, two lasers project the light on the hole of the carrom each of which has 2 sensors.
For complex image processing and estimation of cut shot with respect to power os used.

Refer : https://www.youtube.com/watch?v=18IkxVzs_Zk

Timeline:

Week 1 :

- Conceptualize and buy the major components to be used in the bot

Week 2 :

- Assemble to components to make a complete structure.
- Design the mechanical arm.

Week 3:

- Making the arm
- Making the slider attached to carrom on which the arm slides

Week 4 :

- Roughly complete basic part of bot.
- Coding

Week 5 :

- Enhancing stability of the bot.
- Testing and calibration

Week 6:

- Troubleshooting
- Further improvisation/improving code, etc.

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