GAME ROBOARM

There are specific positions for every number on the die and the goal of the game is to rotate the arm by 60^0 and close the gripper in the least number of turns. You can control the position of the robot arm with hand gestures.

We use 3 gestures
Thumbs Up: Moves the arm to a specific position according to number on dice
Thumbs Down: Moves the arm to initial position
Fist : Closes the gripper

- Controls of Game:
    1. Hand Gestures
    2. Roll a Die
- Score of the game is (1/number of times the dice rolled)

Give a hand gesture after the dice is rolled.

Making of Game:
- *Gesture Recognition*: We removed background from the hand gesture image to get a segmented image and developed a CNN architecture which takes segmented image and classifies hand gestures.
- *Dice Number Recognition:* We Used blog detection of OpenCV library to detect the number of circles present on the top face of the die.

PS: Even though the vertical arm motor provided was not smooth enough, we tried our best to produce a replica of the simulation.
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