Digital Carrom

Kyle
Cognitive Walkthrough

Playing Carrom in the form of video game???

How can move ‘disc’ in the video game input devices
Cognitive Walkthrough

Maybe this game uses a traditional timing based system, where power and the direction is determined by a timing of pressing button.

Or this game might use “pull’n push” mechanic used in pool games, where you have to pull the analog stick to my side and gently push towards the direction I want to hit the ball.
I can literally “flick” the stick. And discs will move in the direction I hit.

Possible issue 1.

People who ever played video games are so familiar with the traditional time-based, or pull’n push mechanics. How will I introduce this more intuitive method to people who are so used to methods that don’t resemble the actual game play.

Possible Solution: good walk-through tutorial.
Now that I learned that the game requires me to flick the stick, how would I adjust power?

Notice that adjusting power is a huge issue whereas setting up the direction of move is simple and intuitive.

Possible issue 2.

People have different strategy in terms of hitting the disc in carrom game (continued on the next page)
<table>
<thead>
<tr>
<th>Scenario 1</th>
<th>Scenario 2</th>
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<tbody>
<tr>
<td><strong>Issue</strong></td>
<td><strong>Issue</strong></td>
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<tr>
<td>Ok, So I guess I have to hit the stick fast and quick in order to get the disc farther.</td>
<td>Ok, I’ll use the ground as a leverage and keep my finger pushing the stick and release to hit stronger.</td>
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<tr>
<td>And I’ll slowly and gently push the disc off where it was in order to have more precision but slow</td>
<td>Exact opposite of scenario 1</td>
</tr>
<tr>
<td>If stick was “pushed” to the edge for the short period of time, the person intended to hit harder.</td>
<td>Exact opposite of scenario 1</td>
</tr>
<tr>
<td>If I want to give it a weak and light hit, I’ll give it a quick and easy flick</td>
<td></td>
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<td><img src="image_url" alt="Diagram" /></td>
<td><img src="image_url" alt="Diagram" /></td>
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</table>
Possible issue 2. continued

The game will have to act very differently depending on the way people think it’s supposed to work. Also, people might change their thinking ‘on the go.’ How can I enforce one mechanism and make sure people don’t forget?

Possible solutions:
1. Introduce a concept of punishment for a bad input.
2. Let people prompt with the “power” that they just hit the disc with, so that they can learn how this mechanism behaves.

Possible issue 3

People complain that it is very difficult to hit in the right direction, because the gamepad is on our hand and actual disc is on the screen. (That is, it is somewhat disorienting)

Possible Solution: I can also provide traditional pull’n release mode as an option. However, using flick mode will give the gamer a bonus power for using more difficult mode. This is not just a user interface problem. It comes down to the fairness of the game mechanics.
Validity of system status

• Users are well informed of what buttons are to be pressed by having interface bar on the bottom.

• Feedback for “hitting” will be present in audio, vibration, and visual also.
• I try to minimize the usage of the common human language, and try to represent everything as icons or pictures.

• It will be very intuitive system that everyone can learn quickly.

However, it might take some time for the gamers to adjust to the system.
User control and freedom

• The game will always give user to access the menu from any points that they can tweak the options as well as quit, should they want to

• If they make a “mistake” to hit the disc, (or analog stick), it is just part of the game mechanics.
• The whole game mechanics revolve around the idea of hitting the analog stick. Not much is getting changed. As gamers play more levels, they will be able to acquire the skill necessary to beat each level easily.
Help users recognize, diagnose, and recover from errors

- As well as the first tutorial, which makes gamers learn how to play the game, there will be quick reference guide shown at the bottom of the screen to tell the user what buttons do what.

- There have to be some hits or tips should the gamer make same mistakes over and over (such as re-enforcing the rule behind the flicking a stick)
Error prevention

• It is somewhat easy, and hard to make errors for this model.

• Where is it easy to make errors?
The game play will involve 2 states:
  • 1. choosing a disc
  • 2. flicking a stick to move it.
People might get confused if they have too many button changes between those two states.
• It is somewhat easy, and hard to make errors for this model.

• Where is it easy to make errors?
The game play will involve 2 states:
  • 1. choosing a disc
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People might get confused if they have too many button changes between those two states.
•As mentioned, there will be a quick button reference guide always present, so that the users can always press the right button to do a specific function.
Aesthetic and minimalist design

• Tutorial for the first time user will help users to overcome the learning curve.

• The problem is that the input method for this project is too intuitive that it deviates from how most of video games are designed, which is very designed specific to the “nature of video games”. So it will require users to do some “backward” learning.
Help and documentation

• Again, tutorial becomes a huge part of learning process.

• Practice mode (or free mode) will be provided for anybody who wants to shine up their skill even more for competitive on-line matches.