Bill of materials:

Pro Micro Arduino Board Kit:
We chose this small arduino board due to its compact size and the simplicity of it. Since we only have 6 buttons and 1 analog stick, we don't need advanced and complicated oversized boards. The board should fit perfectly in our 3d printed case without any issue and all the buttons and the analog stick will be wired to it.

Cost: Approximately 20$
Purchased: Yes

Buttons:
We chose to use standard SMD tactile push buttons that most controller works, because many comptroller users are already use to the feeling of them by now, if we use different switches that are not commonly used, it might cause the user to have an adjustment time when switching to the controller, which we do not want.

Cost: 15$ for 25 pack with caps included
Purchased: No
ASIN: B01E38OS7K

Analog stick:
We decided to use an analog stick over a d-pad because we felt that an analog stick is more commonly used in fighting games rather than a d-pad. while dpad offers a more precise control, an analog stick would offer the user more comfort and ease of use under one hand operations. The user can keep their thumb on the analog stick at all times while a d-pad requires the user to reposition their thumb.

Cost: 16$ for 2 thumbsticks
Purchased: Not Yet
ASIN ： B08X19P5DD (Amazon)

Item model number ： thi-x2-xbo-020020

3D printed shell:
The shape that we chose for the controller is similar to a ergonomic mouse, shell will be 3d printed

Resistors:
This is just a multi pack of resistors of various resistance values
Cost: 16$
Manufacturer: SourceTron
Manufacturer Part Number: ST-Resistor Kit
ASIN: B09LYQ3FN7
Purchased: No

Wires:
Jumper Wire Set
Cost: 8$
Manufacturer:Neuftech
Part Number: EU-140Set-Breadboard Jumper Cable
Purchased: No
ASIN: B0144HG2RE

Breadboard:
We found a mini breadboard that would fit in our case.

Part Number: PRT-12043 (Sparkfun)
Cost: 5$
Purchased: No