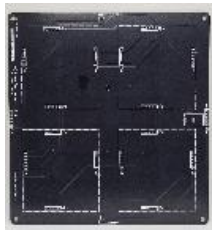**Low-Cost Plug-n-Play Educational Hardware-Oriented Microcomputer Simulator Development Kit (HOMSDK)**

Designator	Component	Number	Cost per unit ($) (May 2025)	Total cost ($)
Microcontroller	Arduino Nano 16MHz (compatible board)	8	2.05	16.4
OLED Display	RGB 80x160 0.96''	8	2.06	16.48
Tact switch	4 pins	24	0.0434	1.04
LED	5mm	16	0.0184	0.29
Resistor 220Ω	SMD 0805	2	0.01	0.02
Pin headers	Female (2x15, 1x8, 4x6)	8	0.0054/pin	0.34
Barrel Jack	Power jack	1	0.214	0.214
Bridge circuit	PCB	1	0.235	0.235
Brick circuit	PCB	8	0.475	3.8
Motherboard	PCB	2	2.514	5.03
Total cost				43.85

Arduino **OLED Display** **LED** **Button** **Resistor** **Header** **Barrel Jack** **Bridge PCB** **Brick PCB** **Motherboard PCB**