

# ClockClock Project

## Sources

Instructables with Servos and 3D-Printing

<https://www.instructables.com/Clockception-How-to-Build-a-Clock-Made-From-Clocks>

AliExpress clone:

[https://a.aliexpress.com/\\_Ejy4i0E](https://a.aliexpress.com/_Ejy4i0E)

GitHub Project with

<https://github.com/Vallasc/clockclock24-replica>

## Hand detection/calibration

The Github design uses hall Sensors HAL3144E from Hallwee, to detect the hands position. The designer states that he was not able to detect the hands reliably with this sensor and his mechanical setup.

## HAL3144E

This is a china clone from

## Hall Sensor comparison

MPN	Manufacturer	Bop(max)	Brp(min)	Bhy(typ)	
A3144E	Hallwee	230	70	50	

## Expenses

### Ausgaben bisher

### PCBs und Komponenten

Date	Item	Side	cost
2025-06-10	PCBs JLCPCB	David	31€
2025-07-22	Komponenten - Reichelt	David	80€
2025-08-22	Motor VID28-05	David	94€
		Summe	<b>205€</b>

## Lackieren und Galvanisieren

Date	Item	Side	cost
2025-08-19	Primer 2K paint	David	71,50€
2025-09-20	Isopropanol	Frederik	19,00€
2025-09-20	Primer, 2K paint (2nd)	Frederik	55,30€
2025-10-28	PVB Filament, Graphitex2	Frederik	63,00€
2025-11-02	Kupfer und Nickel Electrolyte	David	109,80€
2025-11-07	Boxes	Frederik	14€
2025-12-01	Zubehör	Frederik	30€
2025-11-25	Kupferleitlack	David	55,80€
		Summe	<b>417€</b>

## Kosten Fertigstellung (geplante Ausgaben)

Pcs	Item	cost
1	<a href="#">Acrylplattenzuschnitt</a>	ca. 370€
1	<a href="#">Ruthex Gewindeeinsätze set</a>	30€
3	<a href="#">Lack RAL5022 "Nachtblau" 400ml</a>	57€
		<b>457€</b>

## Total Materialkosten

Nur die Materialkosten, ohne den Arbeitseinsatz

Position	Summe
PCBs und Komponenten	205€
Lackieren und Galvanisieren	417€
Fertigstellung	457€
ZwischenSumme	<b>1079€</b>
2025-08-16 Anzahlung	-200€
Total	<b>879€</b>