

_OCKS LLC / BigTimeClocks

CASE STUDY

MAKE COUNT™

CLOCK-ID® CUSTOM CLOCKS SERIES

Client: SPACE X, USA Headquarters & offices, 2021

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CONTACT

EZCLOCKS, LLC 8565 S Eastern ave, suite 150 Las Vegas, NV 89123

Phone: (702) 726 9030

01_Context

The era of space exploration has never been so exciting with the promise to return to moon, achieve commercial space flights and expand mankind's footprint to other planets.

The outer space quest we are embarking upon in pursuit of the final frontier is truely fascinating.

Recent record investments in R&D combined with unique leadership qualities from the most innovative minds of the century have driven unprecedented technological breakthroughs, making dreams become reality.

02_Challenges

When Space X and world renowned CEO Elon Musk, contracted by NASA to land US astronauts on the Moon by 2024, contacted **BigTimeClocks**[®] to develop a custom digital countdown display, we were both honored and extremely motivated to deliver on one of the most challenging and prestigious projects submitted to our engineering team.

Key goals involved delivering a custom countdown clock meeting the highest standards of timekeeping accuracy, exceptional brightness and robust/ durable framework to stand the test of time.

Custom countdown functions programming was required along with special mapping and integration in order to interface with the dedicated infrared remote control.

Step into space!

"With 24" Numerals, 8 digits and measuring expectations. Despite a very challenging over 9 feet long, Model 4248 is 100% cutting economical context impacting supply chains worldwide, BigTimeClocks® developed, edge, space age technology! Our Clock-iD[®] custom clocks design, manufactured and delivered the project in engineering, programming and production under 8 weeks, an absolute record in our teams were fully focused on not only meeting industry" but exceeding our client's - M. SOUSA





President EZCLOCKS, LLC. / BigTimeClocks[®]

Project key Facts

✓ 24" Numerals 🧭 9ft long S Installation time: 1 hour/ 2 operators

The digital clock's weight in excess of 100lbs combined with a 9 foot span would call for the supply of special brackets to either fly the device from the ceiling or use as a wall mount.

From an operations standpoint, BigTimeClocks[®] was tasked with eliminating any potential interruption of a countdown function once initiated, ensuring function continuity even in the event of a power loss to the clock.

Finally, The project timeframe including the design, development, production and delivery of the custom BigTimeClocks® solution was set to not exceed 8 weeks.

C3_Timeline

The project kick off involved extensive discussions with SpaceX to fully understand the project technical and operational requirements in order to establish a clear set of specifications.

Featuring 24 inch numerals, 8 digits, and measuring over 9 feet long, the custom countdown clock developed by BigTimeClocks[®] under project code "model 4248" was a true technical challenge.

BigTimeClocks[®] issued a full set of technical drawings featuring dimensions, numerals layout and cable ports that was signed off by SpaceX, effectively finalizing our preproduction phase.

With massive components inventory on hand as well as highly qualified technicians and programming capabilities, the digital clock was manufactured in under 2 weeks and ready to undergo our highly stringent quality control process.

No less than 60 control points were monitored, covering functions and sequence testing, quality of parts, framework, power supply ratings and accessories.

As part of our standard process, a video of all function tests was captured and shared with SpaceX for approval.

Lastly, a wooden crate measuring over 10ft long was custom built with special internal lining to maintain the large countdown clock securely fastened and eliminate the impact of vibrations during transport. With an overall weight exceeding 200lbs, the crate required 2 men and a lift to ensure delivery in a safe and timely manner.



of BigTimeClocks® benefits from our technology into our digital clocks"



04_Key benefits

Clock-iD[®] by **BigTimeClocks**[®] is a unique proposition offering turn key services featuring project management (specifications, design/ development, production, quality control) combined with special logistics services to ensure the most fragile and oversized packages are delivered without any damage and within the allocated time frame.

BigTimeClocks[®] supplied **SpaceX** with a fully automated and selfmaintained system that eliminates the need for interventions once installed. With dedicated installation support and operations teams, BigTimeClocks[®] is commited to enhancing the user's experience by delivering product trainings on demand.

Developed with customer driven specifications, Clock-iD[®] fully meets on site operations requirements and results in higher productivity and improved process efficiency. The return on investment is typically achieved in under 5 weeks.



Fast installation

Easy to operate

Robust, reliable & accurate

Ultra bright highly legible LEDs

I year warranty

Typical results with Clock-iD[®] solutions





% Process efficiency





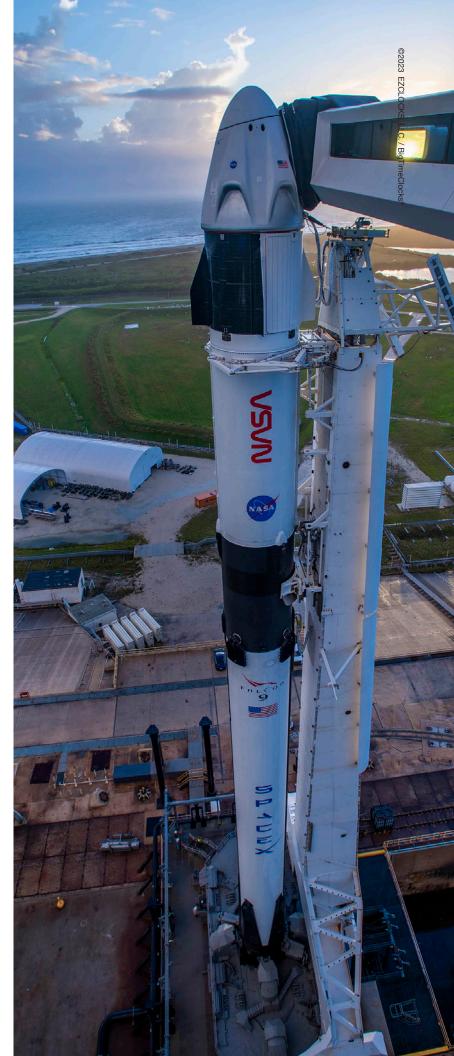
"The best timing solution in the industry"

With over 10 years experience in designing high quality digital LED clocks, BigTimeClocks[®] has established itself as the leading supplier in large format time displays, servicing a broad range of customers and markets. Today, building on a growing engineering team and strong manufacturing base, we are proud to take our product offerings to the next level with Clock-iD[®], custom clocks solutions by BigTimeClocks[®].

BigTimeClocks[®] now integrates the most state-of-the-art technology, materials and assembling processes, ensuring the highest standards of time keeping and product quality are met. BigTimeClocks[®] engineers GPS (satellite time), PoE (ethernet), Wi-Fi and radio technology into our new clock architecture to meet the most advanced requirements in terms of custom digital clock functions and ability to synchronize in a room or even throughout an entire facility.

Clock-iD[®] offers a broad spectrum of customization ranging from numeral sizes and number of digits to colors and functions.

With Clock-iD®, our customers are truely ONE-OF-A-KIND!







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