



*2022 Calendar*

*Out of this World Technology*





**Bardac**  
**drives**





## December

S	M	T	W	T	F	S
28	29	30	1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	1
2	3	4	5	6	7	8

## February

S	M	T	W	T	F	S
30	31	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	1	2	3	4	5
6	7	8	9	10	11	12

# January

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
26	27	28	29	30	31	1 <i>Ring in the New Technology Day</i> New Year's Day
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17 Martin Luther King Jr.'s Birthday	18	19	20	21	22
23	24	25	26	27	28	29
30	31	1	2	3	4	5

As the first purpose-built commercial spaceport, Spaceport America is a hub for leading Space Industry companies.

In much the same way, AutomationThings.com is your portal for **Bardac** and **drive.web** products. Email us today to setup an account:

[info@automationthings.com](mailto:info@automationthings.com)





**Bardac  
drives**

Photo Credit: NASA or National Aeronautics and Space Administration; NASA ID# GSFC\_20171208 Archive e000542; GSFC (Goddard Space Flight Center)



## January

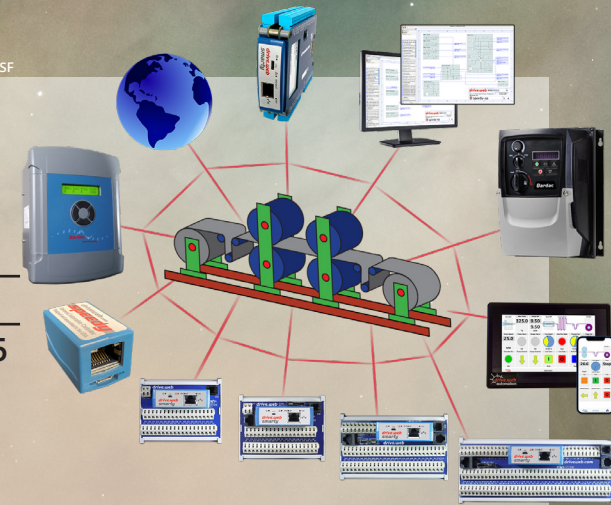
S M T W T F S  
26 27 28 29 30 31 1  
2 3 4 5 6 7 8  
9 10 11 12 13 14 15  
16 17 18 19 20 21 22  
23 24 25 26 27 28 29  
30 31 1 2 3 4 5

# February

## March

S M T W T F S  
27 28 1 2 3 4 5  
6 7 8 9 10 11 12  
13 14 15 16 17 18 19  
20 21 22 23 24 25 26  
27 28 29 30 31 1 2  
3 4 5 6 7 8 9

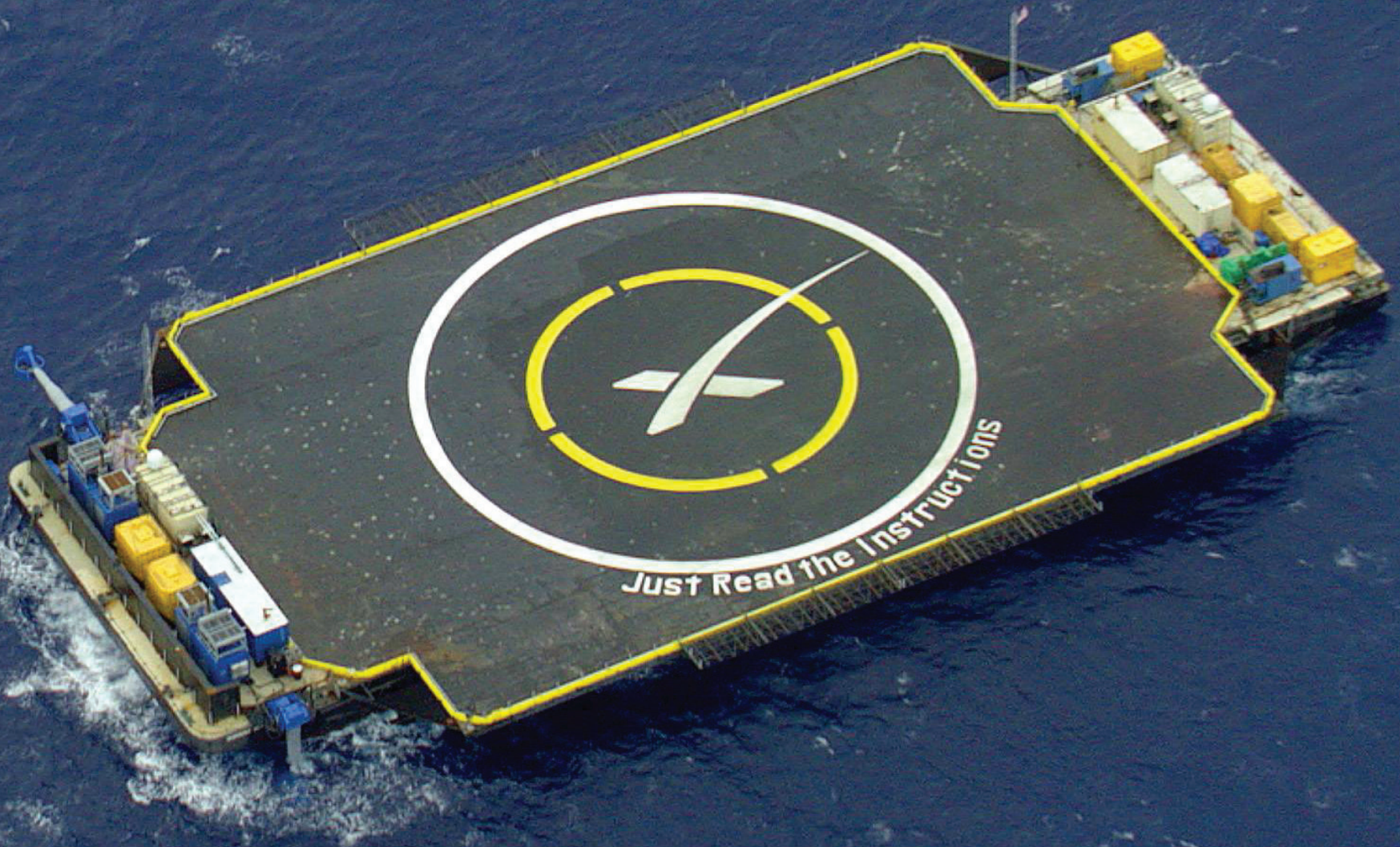
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
30	31	1	2	3	4	5
6	7	8	9 Groundhog Day	10	11	12
13	14 <i>Love Your smarty Day</i> Valentine's Day	15	16	17	18	19 Lincoln's Birthday
20	21 President's Day Washington's Birthday	22	23	24	25	26
27	28	1	2	3	4	5
6	7	8	9	10	11	12



Goddard Space Flight Center of Greenbelt, Maryland is where many satellites are developed and monitored. It's the headquarters of a system of research campuses across the United States of America.

***drive.web*** technology allows you to control and coordinate drive systems of any size over Ethernet, providing: real time control, complete documentation, plus start up and diagnostic tools.





**Bardac**  
drives





**February**  
S M T W T F S  
30 31 1 2 3 4 5  
6 7 8 9 10 11 12  
13 14 15 16 17 18 19  
20 21 22 23 24 25 26  
27 28 1 2 3 4 5  
6 7 8 9 10 11 12

# March

**April**  
S M T W T F S  
27 28 29 30 31 1 2  
3 4 5 6 7 8 9  
10 11 12 13 14 15 16  
17 18 19 20 21 22 23  
24 25 26 27 28 29 30  
1 2 3 4 5 6 7

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
27	28	1	2	3	4	5
6	7	8 Mardi Gras	9	10	11	12
13 <i>Spring forward with drive.web Savings Day!</i> Daylight Saving Begins @2am	14	15	16	17 <i>Green Drives Day</i> Saint Patrick's Day	18	19
20 <i>Make a clean start with drive.web</i> First Day of Spring	21	22	23	24	25	26
27	28	29	30	31	1	2
3	4	5	6	7	8	9

Space X knows a thing or two about landing spaceships. Their "Just Read the Instructions" ASDS [autonomous spaceport droneship (landing barge)] was created to land and recover rockets at sea and it uses **Bardac** DC drives.

**Bardac** single phase DC Drives are available in both regenerative and non-regenerative versions. Power ratings range from fractional to 10 horsepower.





**Bardac**  
**drives**

Photo Credit: NASA or National Aeronautics and Space Administration; NASA ID# GSFC\_20171208\_Archive\_e002151; Hubble Space Telescope



March							May						
S	M	T	W	T	F	S	S	M	T	W	T	F	S
27	28	1	2	3	4	5	1	2	3	4	5	6	7
6	7	8	9	10	11	12	8	9	10	11	12	13	14
13	14	15	16	17	18	19	15	16	17	18	19	20	21
20	21	22	23	24	25	26	22	23	24	25	26	27	28
27	28	29	30	31	1	2	29	30	31	1	2	3	4
3	4	5	6	7	8	9	5	6	7	8	9	10	11
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday							
27	28	29	30	31	1	2							
					PLC User's Day								
					April Fool's Day								
3	4	5	6	7	8	9							
10	11	12	13	14	15	16							
					drive.web Savings Day								
					Tax Day								
17	18	19	20	21	22	23							
					Go Bardac Drives - save energy!								
					Earth Day								
24	25	26	27	28	29	30							
1	2	3	4	5	6	7							



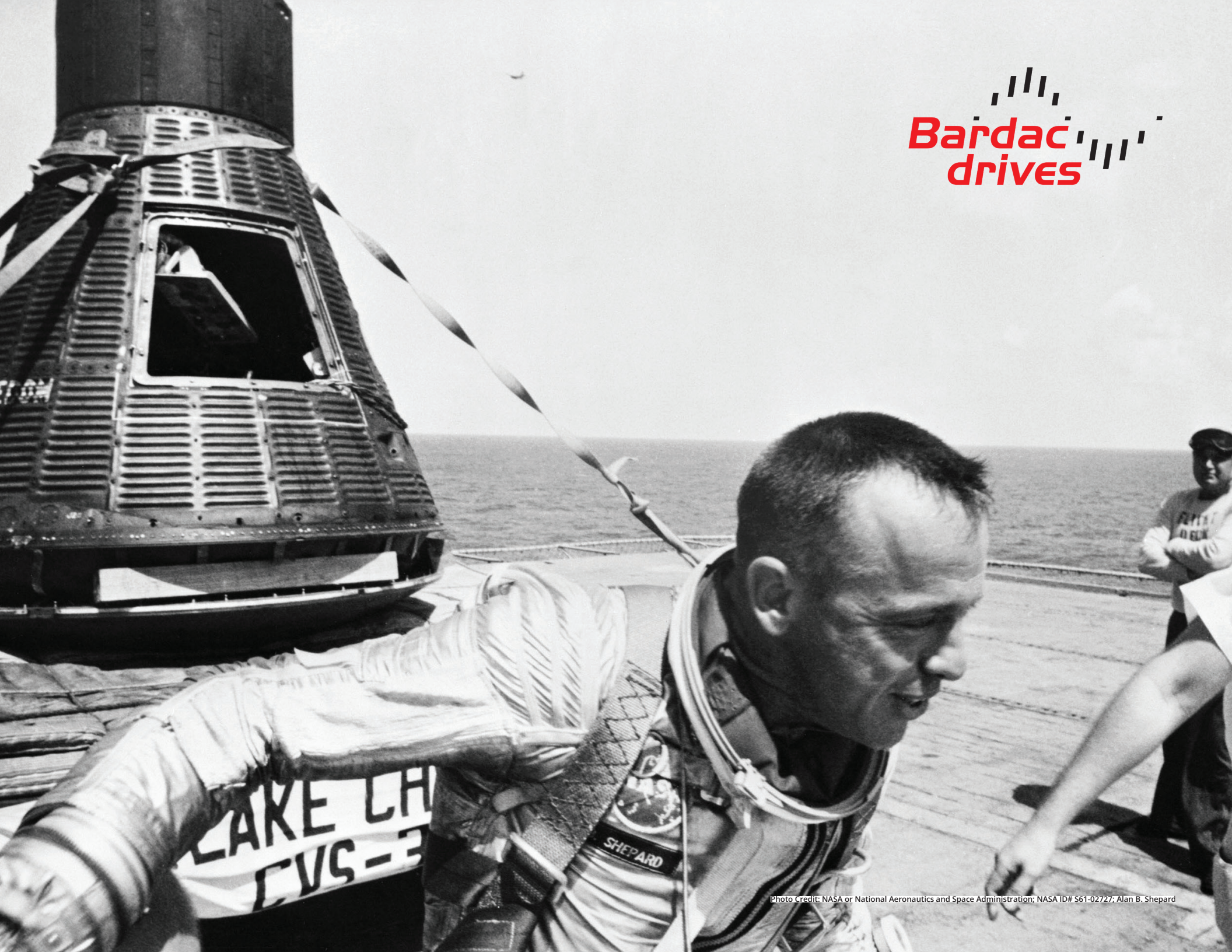
Aboard the space shuttle Discovery, the Hubble Space Telescope was launched into space April 24, 1990. While it was not the first space telescope, the discoveries it has made and continues to make provide humanity profound insight into the depths of Space.

The **smarty<sup>6</sup> (dw240 carrier<sup>6</sup>)** comes fully loaded with 16 analog and 16 digital I/O, plus two selectable current inputs, 2 encoder inputs, and 6 frequency inputs.

Dimensions:  
1.06" x 4.09" x 4.96"  
(WxHxD)  
DIN rail mounting.



**Bardac**  
**drives**



LAKE CH  
CVS-3

SHEPARD

Photo Credit: NASA or National Aeronautics and Space Administration; NASA ID# S61-02727; Alan B. Shepard





On May 5th, 1961, Astronaut Alan Shepard navigated the first manned space flight for the United States aboard the Freedom 7. His mission lasted for 15 minutes and 22 seconds before splashing down in the Atlantic Ocean.

NEMA4X Outdoor rated AC drives, 1-30HP.

For Harsh, wet, and dirty environments.

Switched - version with keypad, display, speed pot, forward/off/reverse switch, and power isolator switch.

Unswitched - version with keypad and display.

#### April

S M T W T F S  
27 28 29 30 31 1 2  
3 4 5 6 7 8 9  
10 11 12 13 14 15 16  
17 18 19 20 21 22 23  
24 25 26 27 28 29 30  
1 2 3 4 5 6 7

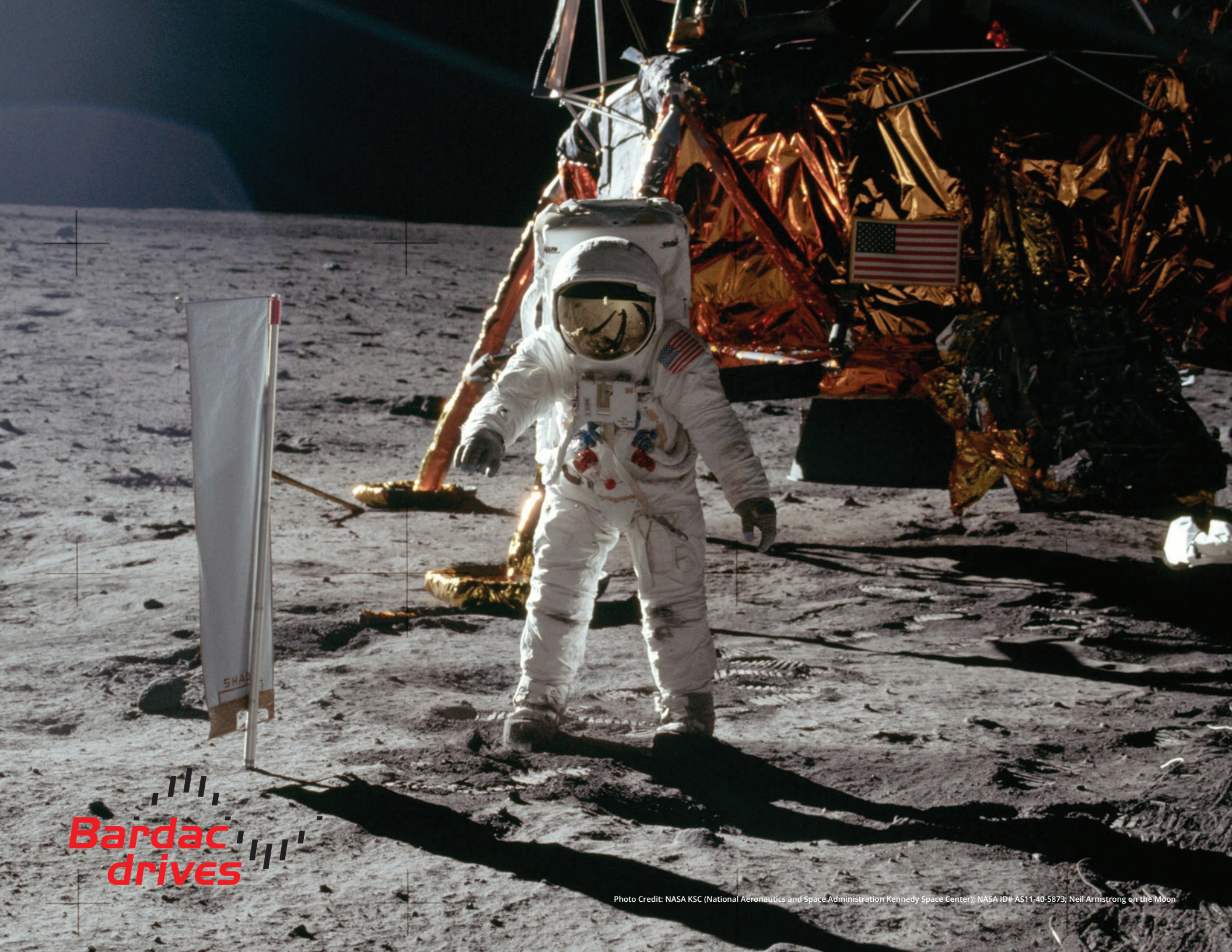
#### June

S M T W T F S  
29 30 31 1 2 3 4  
5 6 7 8 9 10 11  
12 13 14 15 16 17 18  
19 20 21 22 23 24 25  
26 27 28 29 30 1 2  
3 4 5 6 7 8 9

## May

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2	3	4 <i>May the force of drive.web be with you!</i>	5 <i>drive.web Party Day</i> Cinco De Mayo	6	7
8 <i>drive.web smarty Born in the USA!</i> Mother's Day	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30 Memorial Day	31	1	2	3	4
5	6	7	8	9	10	11





**Bardac**  
**drives**

Photo Credit: NASA KSC (National Aeronautics and Space Administration Kennedy Space Center); NASA ID# AS11-40-5873; Neil Armstrong on the Moon



May

S M T W T F S

1 2 3 4 5 6 7

8 9 10 11 12 13 14

15 16 17 18 19 20 21

22 23 24 25 26 27 28

29 30 31 1 2 3 4

5 6 7 8 9 10 11

June

July

S M T W T F S

26 27 28 29 30 1 2

3 4 5 6 7 8 9

10 11 12 13 14 15 16

17 18 19 20 21 22 23

24 25 26 27 28 29 30

31 1 2 3 4 5 6

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
29	30	31	1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
Father's Day Juneteenth		Flag Day  savvy Summer Solstice  First Day of Summer	Hug Your Engineer Day			
26	27	28	29	30	1	2
3	4	5	6	7	8	9

When the Apollo 11 team landed on the moon in 1969, the world watched as we took our first steps on our unexplored celestial neighbor and listened as Neil Armstrong said those famous words, "This is one small step for man, and one giant leap for mankind."

**Bardac's** R&D team work tirelessly to provide our customers with innovative, exceptional, reliable, easy-to-use, and safe products. With each step we make it our goal to provide our customers with a leap in technology.

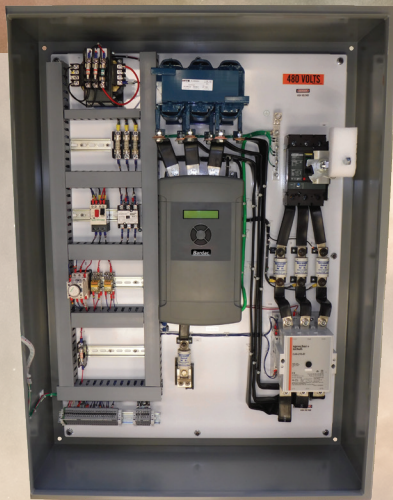




**Bardac**  
**drives**

Photo Credit: Virgin Mothership Eve carries Virgin Spaceship Unity for its first flight ever over Mojave, Calif. in this 2016 file photo.





SpaceShipTwo's flight on July 11, 2021 is Virgin Galactic's most successful space flight to date and marks the attainment of a lifelong goal for company founder Richard Branson.

**Bardac** and our team of systems integrators have successfully designed standard and custom AC & DC drive systems from fractional to thousands of horsepower. Detailed quotations, innovative designs, exceptional support, and experienced on-site start-up.



## June

S	M	T	W	T	F	S
29	30	31	1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	1	2
3	4	5	6	7	8	9

# July

## August

S	M	T	W	T	F	S
31	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31	1	2	3
4	5	6	7	8	9	10

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
26	27	28	29	30	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31	1	2	3	4	5	6

Independence Day

**savvy**  
**Engineer's Day**  
(call for a commemorative cap)





**Bardac**  
**drives**



July							September						
S	M	T	W	T	F	S	S	M	T	W	T	F	S
26	27	28	29	30	1	2	28	29	30	31	1	2	3
3	4	5	6	7	8	9	4	5	6	7	8	9	10
10	11	12	13	14	15	16	11	12	13	14	15	16	17
17	18	19	20	21	22	23	18	19	20	21	22	23	24
24	25	26	27	28	29	30	25	26	27	28	29	30	1
31	1	2	3	4	5	6	2	3	4	5	6	7	8
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday							
31	1	2	3	4	5	6							
7	8	9	10	11	12	13							
14	15	16	17	18	19	20							
21	22	23	24	25	26	27							
28	29	30	31	1	2	3							
4	5	6	7	8	9	10							

drive.web  
Innovation Day



AC Vector Drives 1-400HP

There was a saying in the Space community, “If you want to go to the moon, you first have to go through Hancock County, MS”. This is where a NASA rocket testing center known as the Stennis Space Center has been located since early 1960. It takes a lot to test rockets and part of that process involves a **Bardac** AC drive system. We’re honored that our AC drives, motors, and **drive.web** technology are a part of the Stennis operation.



**Bardac**  
**drives**



Photo Credit: NASA/Wallops/A. Stancil; NASA ID# GSFC\_20171208\_Archive\_e000244; Terrier-Improved Malemute suborbital sounding rocket [GSFC (Goddard Space Flight Center)]





Background Photo Credit: NASA, ESA, N. Smith (University of California, Berkeley), and The Hubble Heritage Team (STScI/AURA) Credit for CTIO Image: N. Smith (University of California, Berkeley) and NOAO/AURA/NSF

### August

S	M	T	W	T	F	S
31	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31	1	2	3
4	5	6	7	8	9	10

### October

S	M	T	W	T	F	S
25	26	27	28	29	30	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31	1	2	3	4	5

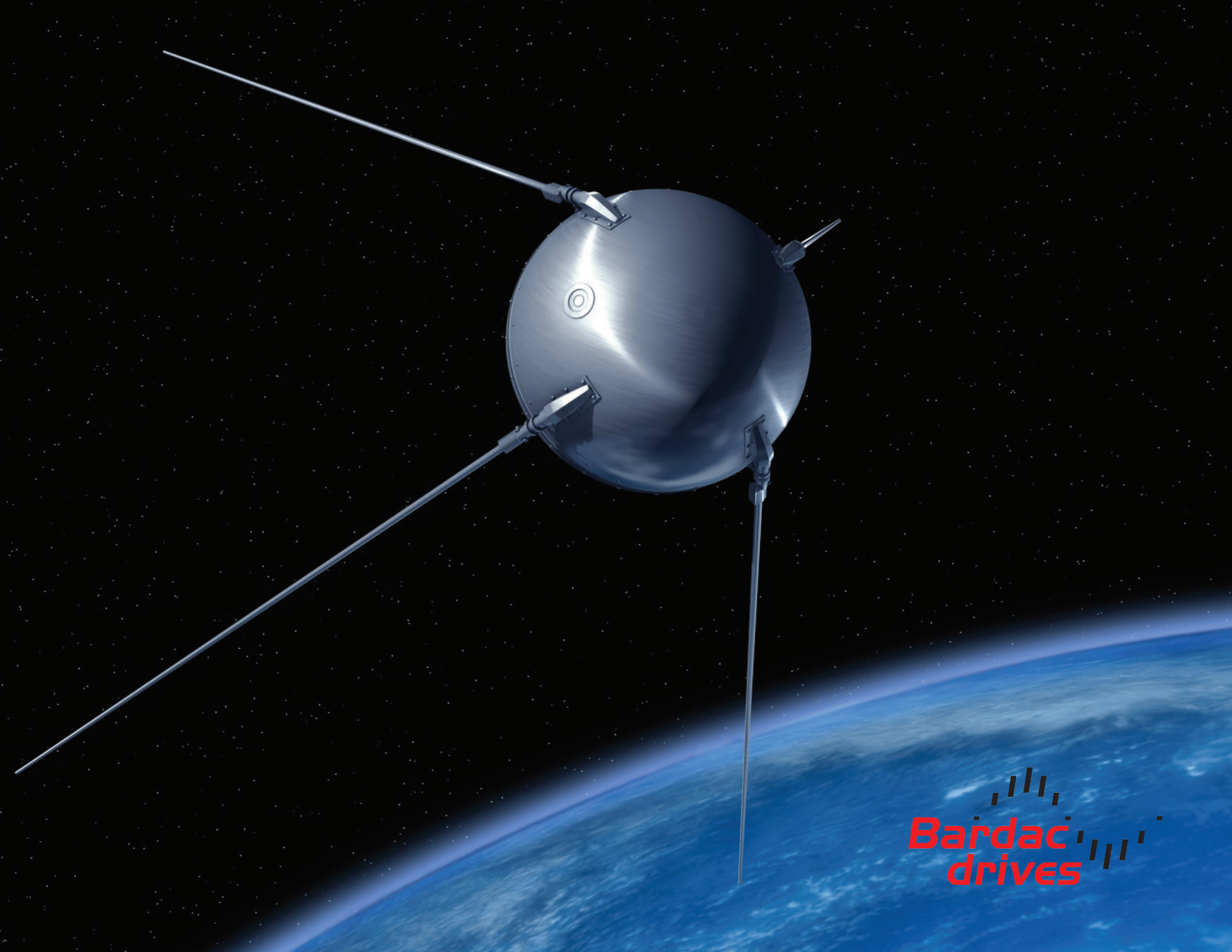
# September

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
28	29	30	31	1	2	3
4	5 Labor Day	6	7	8	9 <i>drive.web Advantage Day</i>	10
11	12	13	14	15	16	17
18 Patriot Day	19	20	21	22	23	24
25	26	27	28	29	30	1
2 Rosh Hashanna	3	4	5	6	7	8

The Terrier-Improved Malemute suborbital sounding rocket carried the payload for NASA's RockSat-X Education Program, including many student experiments.

**Bardac** keeps many of its products in stock and ready to ship. We keep factories up and running.





**Bardac**  
**drives**



## September

S M T W T F S  
28 29 30 31 1 2 3  
4 5 6 7 8 9 10  
11 12 13 14 15 16 17  
18 19 20 21 22 23 24  
25 26 27 28 29 30 1  
2 3 4 5 6 7 8

# October

## November

S M T W T F S  
30 31 1 2 3 4 5  
6 7 8 9 10 11 12  
13 14 15 16 17 18 19  
20 21 22 23 24 25 26  
27 28 29 30 1 2 3  
4 5 6 7 8 9 10



The Soviet Union forever changed the world on October 4, 1957 when they launched Sputnik, a small 23 inch diameter satellite. Its purpose was to measure the density of Earth's atmosphere but the launch ultimately triggered the Space Race.

**speedy** embedded & on-board controllers!  
Ethernet peer-to-peer networking  
USB connectivity  
Gateway options: Modbus TCP, EIP, CANbus, Modbus RTU  
32 bit floating point calculations  
Extensive library of available function blocks

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
25	26	27	28	29	30	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31	1	2	3	4	5
Ghost of PLC Day						
Halloween						
Yom Kippur						
Indigenous Peoples' Day						





**Bardac**  
**drives**





Background Photo Credit: NASA, ESA, N. Smith (University of California, Berkeley), and The Hubble Heritage Team (STScI/AURA) Credit for CTIO Image: N. Smith (University of California, Berkeley) and NOAO/AURA/NSF

### October

S	M	T	W	T	F	S
25	26	27	28	29	30	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31	1	2	3	4	5

### December

S	M	T	W	T	F	S
27	28	29	30	1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31
1	2	3	4	5	6	7

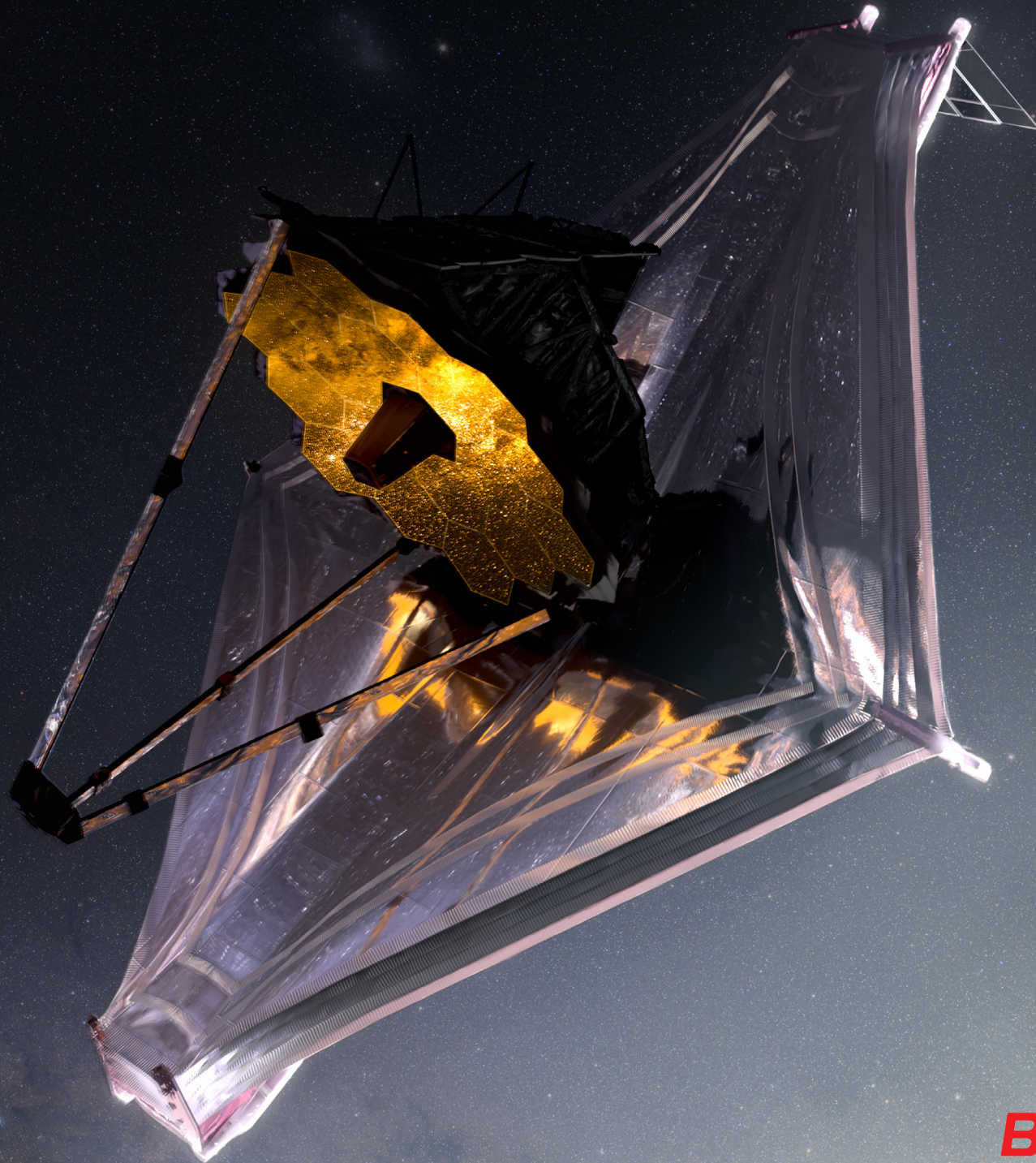
# November

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
30	31	1	2	3	4	5 <i>drive.web Industrial Revolution Day</i>
6 <i>Bardac Savings Day</i>  Daylight Saving Time Ends	7	8	9	10	11	12
13	14	15 Election Day	16	17	18 Veterans Day	19
20	21	22	23	24	25	26
27	28	29	30	1 Thanksgiving Day	2	3
4	5	6	7	8	9	10

Three phase DC Drives  
Regenerative and  
Non-Regenerative  
1 - 2000+ HP

Located on the Lizard  
Peninsula in Cornwall,  
England, the GoonHilly  
Sat Comms facility has  
recently undergone major  
retrofitting to incorporate  
high precision PLX DC  
drives to control its  
satellite dishes. This will  
allow greater precision  
when performing Deep  
Space communications.





**Bardac**  
**drives**

Photo Credit: NASA GSFC/CIL/Adriana Manrique Gutierrez



## November

S M T W T F S  
 30 31 1 2 3 4 5  
 6 7 8 9 10 11 12  
 13 14 15 16 17 18 19  
 20 21 22 23 24 25 26  
 27 28 29 30 1 2 3  
 4 5 6 7 8 9 10

# December

## January

S M T W T F S  
 1 2 3 4 5 6 7  
 8 9 10 11 12 13 14  
 15 16 17 18 19 20 21  
 22 23 24 25 26 27 28  
 29 30 31 1 2 3 4  
 5 6 7 8 9 10 11

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
27	28	29	30	1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31
1	2	3	4	5	6	7

Pearl Harbor  
Remembrance Day

*drive.web*  
Winter Solstice

First Day of Winter

Christmas Eve

New Year's Eve

Hanukkah

*Box for*  
*drive.web*  
*- save the world!*

Christmas

Boxing Day

Expected to launch December 18, 2021 from Kourou French Guiana, the idea for the James Webb Space Telescope was conceived in 1996.

After reaching its destination behind the moon, it's expected to operate for 10 years and be able to see about 13.5 billion years into the past. This means humans will be able to see the first galaxies that formed in the early universe.

Distribute our **savvyPanel Touch** screens around your machine for a real time view of your system. Features include: a custom machine one line, real time display of parameters, trending, annunciators, and push button control.



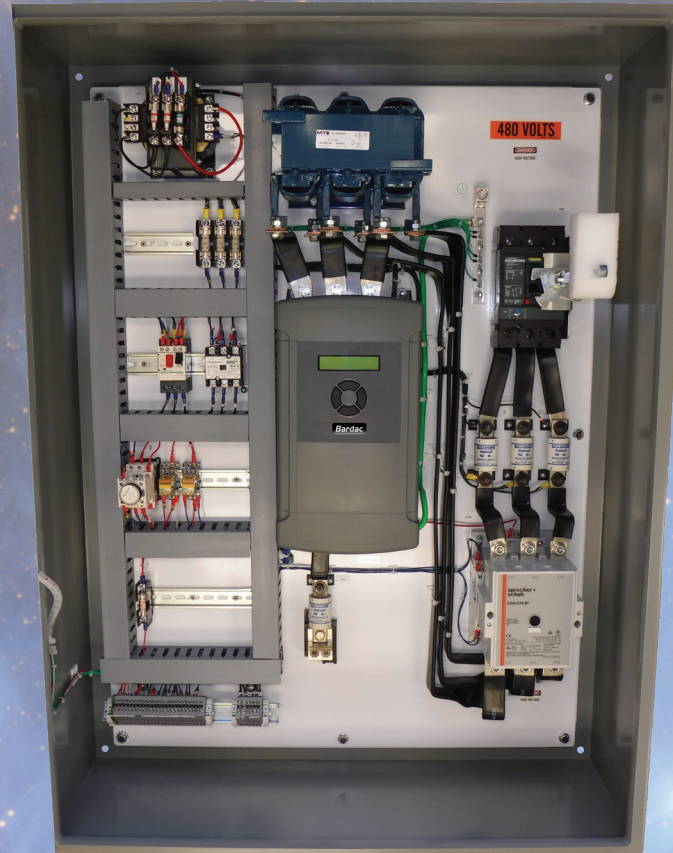


*We make custom  
Modulus Packaged Drives!*



*NEMA 4X Outdoor  
Rated AC Drives  
1-30 HP*

*AC Vector Drives  
1 - 400 HP*



*Single Phase DC Drives  
Regenerative &  
Non-Regenerative  
0.1 - 10 HP*

*Three Phase DC Drives  
Regenerative &  
Non-Regenerative  
1 - 2000+ HP*



***Bardac... smart drives and controls excellence***

Background Photo Credit: "Blue WISE Pleiades" by NASA / JPL-Caltech / UCLA / Judy Schmidt is licensed under CC BY 3.0.

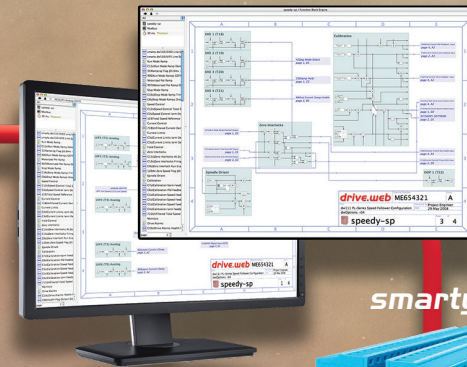


# drive.web... automation for savvy engineers

PLX 115 DC Drive

E3 Series NEMA4X AC Drive

savvy smart tools  
configure, connect, control



smarty<sup>6</sup>

savvyPanel touch  
smart industrial displays



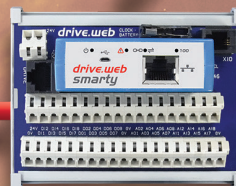
savvyPanel  
for iOS and Android  
remote control



speedy  
embedded controllers



smarty<sup>1</sup>



smarty<sup>2</sup>



smarty<sup>3</sup>



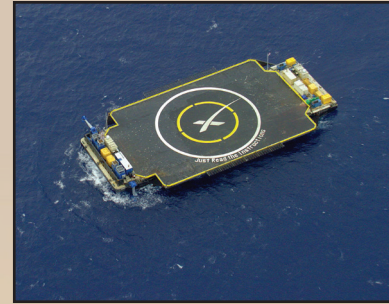
smarty<sup>4</sup>

smarty<sup>6</sup> controllers with I/O

## drive systems coordinated by drive.web

Background Photo Credit: NASA, ESA, N. Smith (University of California, Berkeley), and The Hubble Heritage Team (STScI/AURA) Credit for CTIO Image: N. Smith (University of California, Berkeley) and NOAO/AURA/NSF

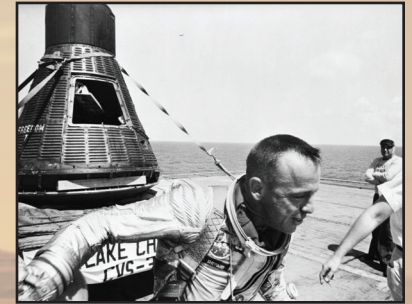




**Bardac  
drives**  
smart drives & systems



**drive.web**  
automation  
savvy automation  
technology



## **Bardac Corporation for Automation Excellence**

40 Log Canoe Circle, Stevensville, MD 21666  
(410) 604-3400 or toll-free USA 1 (888) 667-7333  
[bardac.com](http://bardac.com) | [driveweb.com](http://driveweb.com) | [AutomationThings.com](http://AutomationThings.com)

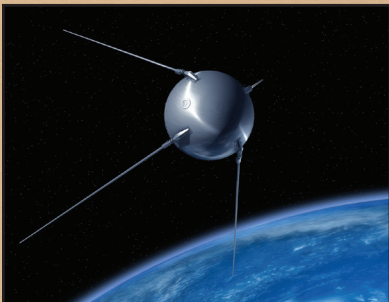
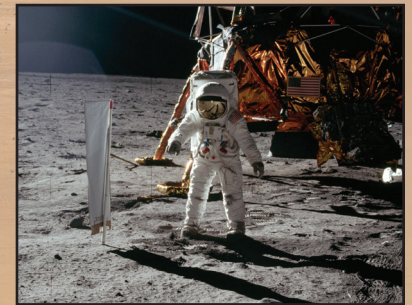


Photo Credit: NASA/JPL-Caltech; NASA ID# PIA24127; Helicopter Above Perseverance on Mars