



AWSQuest is complete, but you can still play along! Our highly skilled fans helped blogger Jeff Barr rebuild his beloved robot Ozz! The robot left a set of 20 “orangeprints” that showed how to build components of Ozz 2.0. Each orangeprint was unlocked by the community solving a puzzle hidden on the blog site, whose answer was the name of a robot part. You can still enter answers in here to unlock components. For each puzzle below, we link to the puzzle’s original launch tweet, a spoiler page (warning: contains spoilers!) for the puzzle, and the orangeprint unlocked for solving that puzzle.

HOW TO PLAY:

You can still play AWSQuest! Every day between March 9th and March 27th, we launched a new puzzle to solve. Somewhere on AWS, there are hidden clues for each new daily puzzle. You might not find every clue in one location; they could be spread out. So keep digging. Once you find the clues, you'll need to decipher them and figure out the names of each component, then enter it and see if you were right. If you are correct, an orangeprint to help us rebuild Ozz 2.0 will appear!

<p>1. The part the robot uses to securely identify users</p> <p>LAUNCH TWEET SPOILER PAGE ORANGEPRINT</p>	<p>2. The part the robot uses to understand language</p> <p>LAUNCH TWEET SPOILER PAGE ORANGEPRINT</p>	<p>3. The part the robot uses to move</p> <p>LAUNCH TWEET SPOILER PAGE ORANGEPRINT</p>	<p>4. The part the robot uses for deleting bad data</p> <p>LAUNCH TWEET SPOILER PAGE ORANGEPRINT</p>
<p>5. The part the robot uses to power itself</p> <p>LAUNCH TWEET SPOILER PAGE ORANGEPRINT</p>	<p>6. The part the robot uses to relate to humans</p> <p>LAUNCH TWEET SPOILER PAGE ORANGEPRINT</p>	<p>7. The part the robot uses for geolocation</p> <p>LAUNCH TWEET SPOILER PAGE ORANGEPRINT</p>	<p>8. The part the robot uses for self-awareness</p> <p>LAUNCH TWEET SPOILER PAGE ORANGEPRINT</p>
<p>9. The part the robot uses to sort data</p> <p>LAUNCH TWEET SPOILER PAGE ORANGEPRINT</p>	<p>10. The part the robot uses to differentiate objects</p> <p>LAUNCH TWEET SPOILER PAGE ORANGEPRINT</p>	<p>11. The part the robot uses to regulate its morality</p> <p>LAUNCH TWEET SPOILER PAGE ORANGEPRINT</p>	<p>12. The part the robot uses to output pictures</p> <p>LAUNCH TWEET SPOILER PAGE ORANGEPRINT</p>
<p>13. The part the robot uses to access Wi-Fi</p> <p>LAUNCH TWEET SPOILER PAGE ORANGEPRINT</p>	<p>14. The part the robot uses to assemble data</p> <p>LAUNCH TWEET SPOILER PAGE ORANGEPRINT</p>	<p>15. The part the robot uses for sonic output</p> <p>LAUNCH TWEET SPOILER PAGE ORANGEPRINT</p>	<p>16. The part the robot uses to simulate flight</p> <p>LAUNCH TWEET SPOILER PAGE ORANGEPRINT</p>
<p>17. The part the robot uses to think</p> <p>LAUNCH TWEET SPOILER PAGE ORANGEPRINT</p>	<p>18. The part the robot uses to store data</p> <p>LAUNCH TWEET SPOILER PAGE ORANGEPRINT</p>	<p>19. The part the robot uses to operate its internal components</p> <p>LAUNCH TWEET SPOILER PAGE ORANGEPRINT</p>	<p>20. The complete orangeprint of Ozz 2.0</p> <p>LAUNCH TWEET SPOILER PAGE ORANGEPRINT</p>

Credits

AWSQuest was created by Amazon Web Services and Lone Shark Games.

AWS: Jeff Barr, Betsy Chernoff, Ana Visneski, Devin Watson, and Derek Young, with help from Abby Fuller, Randall Hunt, Jon Leitheusser, Sara Rodas, Veronica Steele, and many more awesome people

Lone Shark: Mike Selinker, Shane Steed, and Gaby Weidling, with orangeprints by Elisa Teague and additional puzzle design by Eric Harshbarger, Aviva Schecterson, and Wil Zambole

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Puzzle #2: the part the robot uses to understand language

Launch Date: March 9

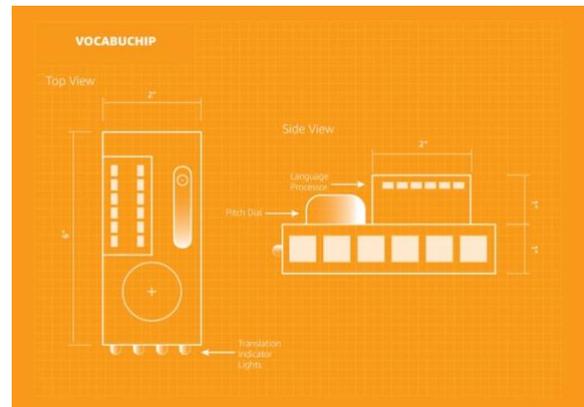
How it works: On the first [podcast](#), we announce that #AWSQuest has begun. There's also the beginning of a puzzle that affects all the podcasts in during the time of the game. In the March 9 podcast is the phrase "TODAY'S WORD IS CUIMHNE FHIORUIL." In the [launch blog](#) and in several blogs' comments are comments from Betsy Chernoff that have other foreign words. These phrases are spread out among the podcasts and other sites:

1. On podcast: TODAY'S WORD IS CUIMHNE FHIORUIL
2. Comment on go-live post - <https://aws.amazon.com/blogs/aws/join-the-aws-quest-help-me-to-rebuild-ozz/> Looking forward to this like a ENFRASRIKTI!!
3. Machine Learning: <https://aws.amazon.com/blogs/machine-learning/build-a-social-media-dashboard-using-machine-learning-and-bi-services/> - Hot FORA DE LINIA! Excited to see the intersections of Social Media, Machine Learning and BI!
4. Database: <https://aws.amazon.com/blogs/database/using-json-with-mysql-5-7-compatible-amazon-aurora/> - FORRITUN is with the bold.
5. Big Data - <https://aws.amazon.com/blogs/big-data/power-data-ingestion-into-splunk-using-amazon-kinesis-data-firehose/> - Does anyone know if Kinesis Data Firehose works well with KOKUA?
6. APN - <https://aws.amazon.com/blogs/apn/building-managing-and-deploying-blockchain-applications-with-blockapps/> - BlockApps and KONPYUTA go together like peanut butter and jelly
7. Machine Learning - <https://aws.amazon.com/blogs/machine-learning/creating-a-question-and-answer-bot-with-amazon-lex-and-amazon-alexa/> Question and Answer Bot is SHANGZAI in our book!
8. AWS News - ULAVI Hot Startups, and we do too! <https://aws.amazon.com/blogs/aws/aws-hot-startups-for-february-2018-canva-figma-invision/>
9. Database - <https://aws.amazon.com/blogs/database/how-to-architect-a-hybrid-microsoft-sql-server-solution-using-distributed-availability-groups/> This is WOLKREKENAARS!
10. AWS News - <https://aws.amazon.com/blogs/aws/aws-online-tech-talks-march-2018/> YAPAY ZEKA, these tech talks are really going to provide some great insights.

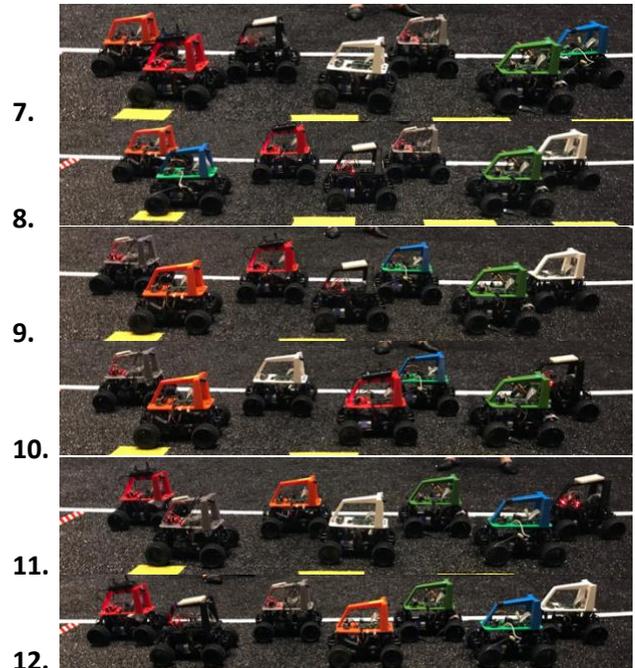
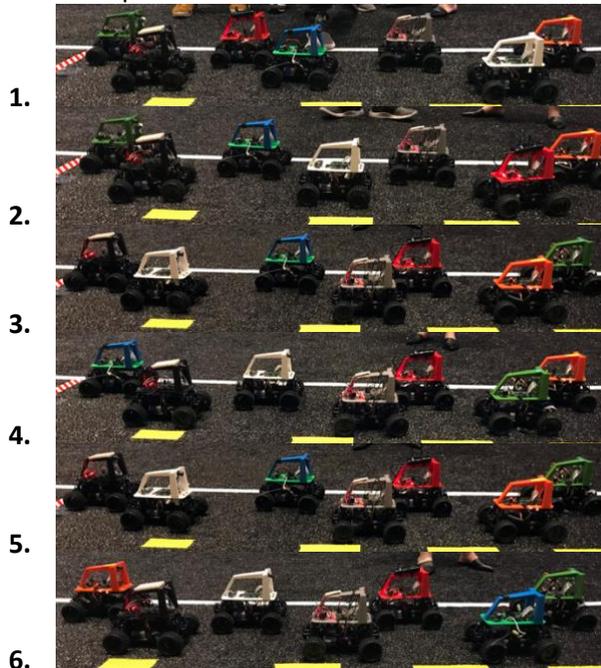
Ordered by time order starting at GMT with Ireland and looping around eastward to Iceland:

- CUIMHNE FHIORUIL means "**virtual memory**" in Gaelic (spoken in Ireland)
- FORA DE LINIA means "**offline**" in Catalan (spoken in Catalonia)
- WOLKREKENAARS means "**cloud computing**" in Afrikaans (spoken in South Africa)
- YAPAY ZEKA means "**artificial intelligence**" in Turkish (spoken in Turkey)
- ULAVI means "**browser**" in Tamil (spoken in Sri Lanka)
- SHANGZAI means "**upload**" in Chinese (spoken in China)
- KONPYUTA means "**computer**" in Japanese (spoken in Japan)
- KOKUA means "**help**" in Hawaiian (spoken in Hawaii)
- ENFRASRIKTI means "**infrastructure**" in Haitian Creole (spoken in Haiti)
- FORRITUN means "**programming**" in Icelandic (spoken in Iceland)

The first letters of the translated words spell **VOCABUCHIP**.



These can be placed in this correct order:



The order of cars (indicated by first initials) is this:

1. **ETVOCRL**
2. **ETORCVL** (R moves up, V moves back)
3. **TROCVLE** (R moves up, E moves back)
4. **OTRCVEL** (O moves up, L moves back)
5. **TCRVOEL** (C moves up, O moves back)
6. **LTRCVOE** (L moves up, C moves back)
7. **LVTRCEO** (V moves up, O moves back)
8. **LOVTCER** (O moves up, R moves back)
9. **CLVTOER** (C moves up, O moves back)
10. **CLRVOET** (R moves up, T moves back)
11. **VCLREOT** (V moves up, O moves back)
12. **VTCLROE** (C moves up, R moves back)

The cars that fell behind in each heat begin with letters that spell **VELOCO-ROTOR**.

Puzzle #4: the part the robot uses for deleting bad data

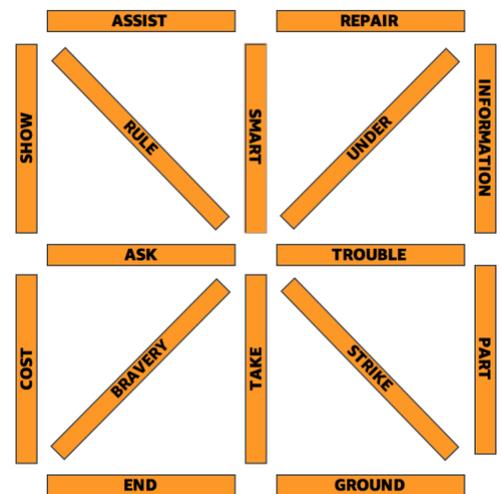
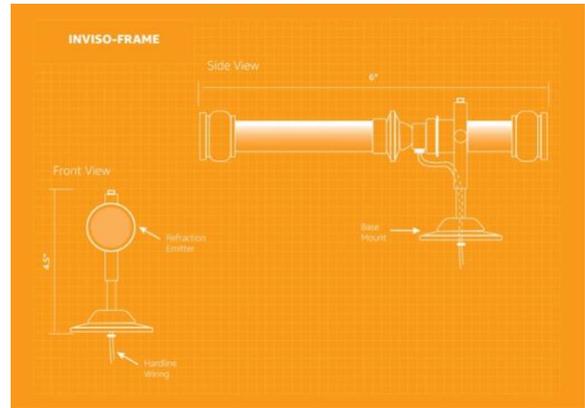
Launch Date: March 24

How it works: The Twitter account [@OzzTheRobot](#) starts posting glowing messages to [@awscloud](#).

The account's profile pic is an orange word frame.

@OzzTheRobot's tweets are:

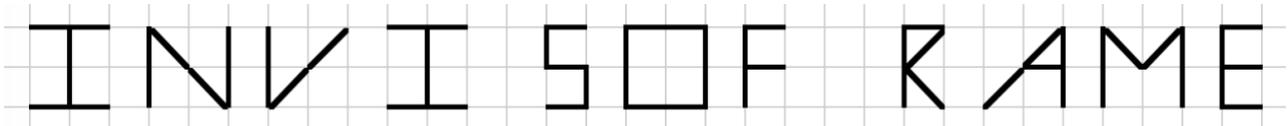
- 4:00 @awscloud, I need some service! Teach me how to file a request. If I can figure it out, I can quit bugging you!
- 4:10 @awscloud, there's no danger if I demonstrate that I can manage a subordinate who can report his contribution.
- 4:20 @awscloud, in the spirit of serving up the most knowledge, I have a dilemma. Let me leave it here.
- 4:30 @awscloud Here's a screen grab of my brilliant patch. Look below the "register" line.
- 4:40 @awscloud There's benefit to your options for avoiding damage. Glad I sent in a query!
- 4:50 @awscloud What a fix I'm in! I got a message that a section of my foundation won't finish this amount of performance. Help!
- 5:00 @awscloud I can restore my settings now! That can't hurt! Hey, can I bother you about a component? What on earth is it for?
- 5:10 @awscloud Thanks for your aid! I needed a correct and wise opinion on my conclusion. You really crushed it.
- 5:20 @awscloud My display has every value in its place. I'm daring all of Twitter to start following you folks!
- 5:30 @awscloud The new tools are worth every penny! As I program, each command is a hit. I can divide up my data!
- 5:40 @awscloud I <3 your blog rebuild! Its support architecture is so clever. Way to seize the opportunity to be the ultimate in your field!



Answer: Reading the tweets from top to bottom (in reverse posting order) lets the solver find synonyms of the words in the profile pic. Highlighting these words in order make digital letters.

- I = REPAIR (rebuild), ASSIST (support), SMART (clever), TAKE (seize), END (ultimate), GROUND (field)
- N = COST (worth), SHOW (program), RULE (command), STRIKE (hit), PART (divide), INFORMATION (data)
- V = SHOW (display), COST (value), BRAVERY (daring), UNDER (following)
- I = ASSIST (aid), REPAIR (correct), SMART (wise), TAKE (opinion), END (conclusion), GROUND (crushed)
- S = REPAIR (restore), SMART (hurt), TROUBLE (bother), PART (component), GROUND (earth)
- O = REPAIR (fix), INFORMATION (message), PART (section), GROUND (foundation), END (finish), COST (amount), SHOW (performance), ASSIST (help)
- F = ASSIST (benefit), SHOW (play), COST (damage), ASK (query)
- R = TAKE (grab), SMART (brilliant), REPAIR (patch), UNDER (below), STRIKE (register)
- A = BRAVERY (spirit), UNDER (serving), INFORMATION (knowledge), TROUBLE (dilemma), PART (leave)
- M = COST (danger), SHOW (demonstrate), RULE (manage), UNDER (subordinate), INFORMATION (report), PART (contribution)
- E = ASSIST (service), SHOW (teach), ASK (request), COST (figure), END (quit)

This makes these letters.



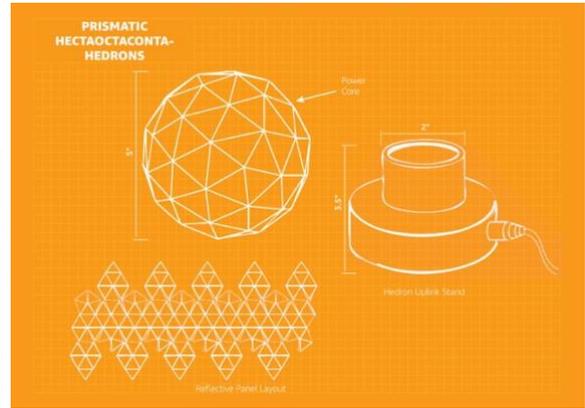
Or **INVISO-FRAME**.

Puzzle #5: the part the robot uses to power itself

Launch Date: March 16

How it works: A [video](#) at the Amazon biodomes has an object like the one below shown in the biodome. 47 Amazon Twitter accounts post images of coded messages with the #awsquest logo.

Mgfayafuhq nxquyet
jwop rqmfgduzs Qyuzqy

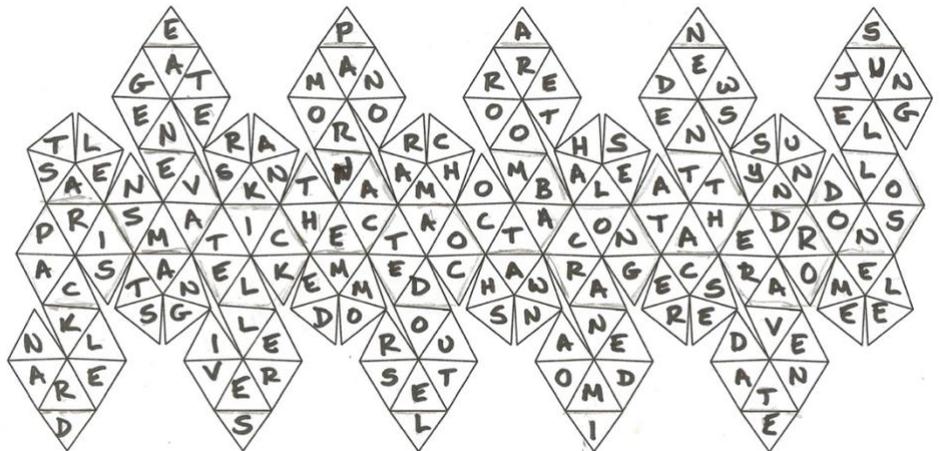


@tina_kelleher: Bnym ymj gtyytr wtb...	@adriano: Gloioutgjuy	@simon_elisha: Dageuzs fgzq / Fmefk nuf
@dmennis: ...fs Nqqnstinx hnyd	@ziniman: Gy ckrr	@chuckm: Dguzqp / "Efmd Fdqw" mofad Ymdw
@derekbelt: Bfqp ns f ufwfij	@AWSOpen: Hkruckj	@jonleith: Eqxr-sgupqp oxqmqzd / Yahqp azq'e zqow
@AWS_Gov: lbfwk uqfsjy	@AWSforMobile: Igrr zu g cgozcx	@awsstartups: Eyuft'e eou-ru eqduqe / Otube uz
@thatgirlrei: Mj uqfdji Aneensn	@jonathanallen02: luatzkx	@jeffbarr: lupq etaf / Euzsqd Btux
@derekyoung: Nsyjwsjy htssjhytw	@deirdres: Jktyk xgotluxkyz	@jrhunt: lannxk fdqmf / Dqbmud m imxx
@colmmacc: Qnpj xtrj inxutxnyntsx	@danilop: Ksargzkj g mnuyz	@abbyfuller: Mgfayafuhq nxquyet / jwop rqmfgduzs Qyuzqy
@madhushekar23: Tnq-wnhm wthp	@benalt: Ktznayogyzoigrre hgiqotm	@acvisneski: Nqxfqp / Xqzuz'e raqe
@joseph_flasher: Xynsljwx	@FizyInTheHall: Lgt	@mza: Qgdabqmqz oqzfqd / Nmzw qybxakqq
@sunilmallya: Xzujwqfynajqd rnszxhzqj	@094459: Ngzk	@lonesharkgames: Tmxr ftq pmk, baquomxxx / Ftdqi m fmzfdgy
@awsmarketplace: Xbtwiknlmy, ujwfmfx	@awscloud: Oxq	@kprankumar: Yqmx bmdfuoubmzfe / Pup mz ZRX van
@gabehollombe: Ymj d hwtxx knqjx	@luiscolon1: Ozgrogt inkkyk	@johnhildeb: YEZNO arrqduzs / Bujmd huxxmuz
	@DevRelChap: Qotj ul igrktjgx	@joshinthecloud: Ygeuomx cgqqz / Zaf me nduqr
	@davidbabylon: Roqk gt S&S'y vkg taz	@craiglaw2: Zmfuhq Myqduomz xmzsgmsq / Imffe azeodqqz
	@heidimiller: Sgqk rgamn	@buzzyNZ: Zadftiqef mudbadf / Omxy
	@AWS_Edu: Tuxznkxt tgzout	
	@brentContained: Vxoyut, iurruwaogrre	
	@AWS_Partners: Ynuxz vgtzy	
	@nathankpeck: Yurjokx'y yvkiogrze	
	@cloudfront: ZnXuamncgey	

These coded clues produce the following clues (and their answers) when shifted backward by 5, 6, or 12 spaces in the alphabet.

With the bottom row...	Aficionados: MAVENS	Rousing tune / Tasty bit: ANTHEM / MORSEL
...an Illinois city: DES PLAINES	As well: AT THAT	Ruined / "Star Trek" actor Mark: UNDONE / LENARD
Walk in a parade: MARCH	Bellowed: ROARED	Self-guided cleaner / Moved one's neck: ROOMBA / CRANED
Dwarf planet: CERES	Call to a waiter: GARCON	Smith's sci-fi series / Chips in: LENSMAN / GIVES
He played Vizzini: SHAWN	Counter: NEGATE	Wide shot / Singer Phil: PANORAMA / OCHS
Internet connector: MODEM	Dense rainforest: JUNGLE	Wobbly treat / Repair a wall: JELL-O / SPACKLE
Like some dispositions: SUNNY	Emulated a ghost: MOANED	Automotive blemish / xkcd featuring Eminem: DENT / THE RAVEN
Oil-rich rock: SHALE	Enthusiastically backing: SOLD ON	Belted / Lenin's foes: SUNG / TSARISTS
Stingers: GNATS	Fan: ROOTER	European center / Bank employee: GENEVA / TELLER
Superlatively minuscule: LEAST	Hate: REVILE	Half the day, poetically / Threw a tantrum: MORN / ACTED OUT
Swordfight, perhaps: MELEE	Irk: RANKLE	Meal participants / Did an NFL job: EATERS / KICKED
They cross files: RANKS	Italian cheese: ROMANO	MSNBC offering / Pixar villain: NEWS / SYNDROME
	Kind of calendar: ADVENT	Musical queen / Not as brief: ARETHA / LONGER
	Like an M&M's peanut: COATED	Native American language / Watts onscreen: CHOCTAW / NAOMI
	Make laugh: TICKLE	Northwest airport / Calm: SEA-TAC / SEDATE
	Northern nation: SWEDEN	
	Prison, colloquially: THE CAN	
	Short pants: CAPRIS	
	Soldier's specialty: COMBAT	
	Throughways: ROUTES	

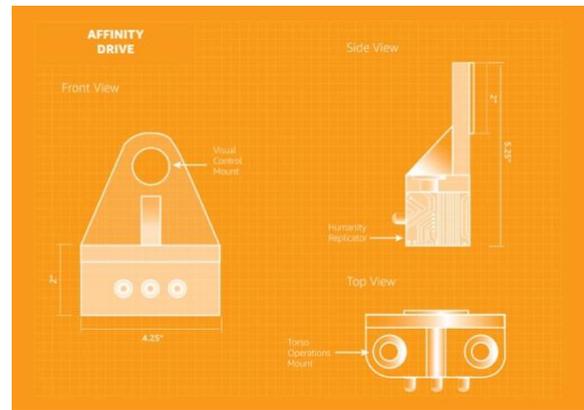
These words can be placed into a heptacontahedron—a 180-sided solid splayed out on a flat page. The five-letter words and six-letter words are placed in pentagons and hexagons whose words start at any triangle and go either clockwise or counterclockwise. The two-word pairs go diagonally, crossing the pentagons and hexagons. Across the center of this grid is the answer, **PRISMATIC HECTAOCTACONTAHEDRONS**.



Puzzle #6: the part the robot uses to relate to humans

Launch Date: March 10

How it works: Jeff's [blog](#) looks back on a fun event at re:invent—the building of a Lego Rube Goldberg machine that Mike shows off in a [video](#). Jeff's blog hides these pictures in random order in the first 13 appearances of the letter "i" (made up of a dot and dash).



Following the video, this is the correct order of pictures.



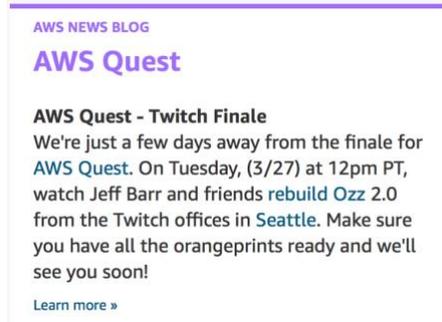
With orange balls treated as dots and white balls treated as dashes, the pictures spell out the Morse code letters in the answer **AFFINITY DRIVE**.

Puzzle #7: the part the robot uses for geolocation

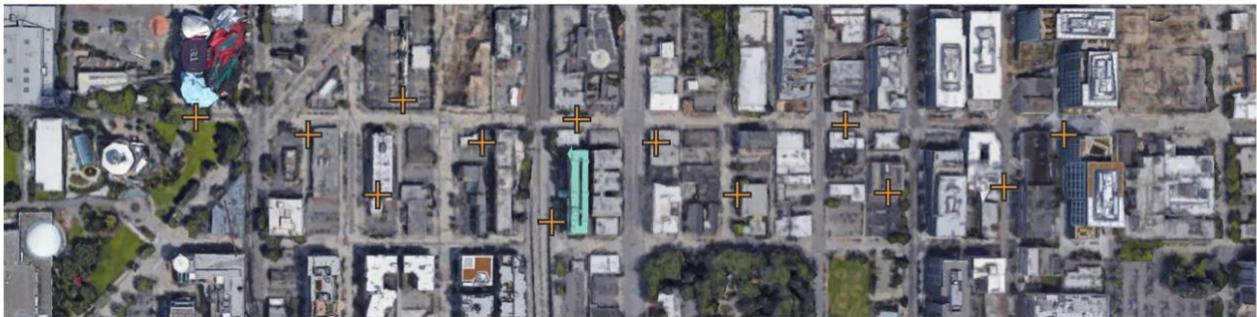
Launch Date: March 25

How it works: A

[What's New](#) post links to a satellite view of Seattle which contains the Space Needle. Its title is "washingtonmap1." Looking for washingtonmap2 gets a second



Washington map—this a map of Washington DC with the Washington Monument on it. The maps have orange crosses in nearly the same places, but they have moved slightly between the Seattle and DC map.



The two images' orange crosses move very slightly from image 1 to image 2. In order from left to right on the map, the orange crosses move in this string of compass directions: NE-N-SW-S-SE-SW-E-NW-SE-NE-SE-S-S. These correspond to eight compass-point letters surrounding the Washington Monument in image 2, spelling **PLASMA COMPASS**.



Puzzle #8: the part the robot uses for self-awareness

Launch date: March 13

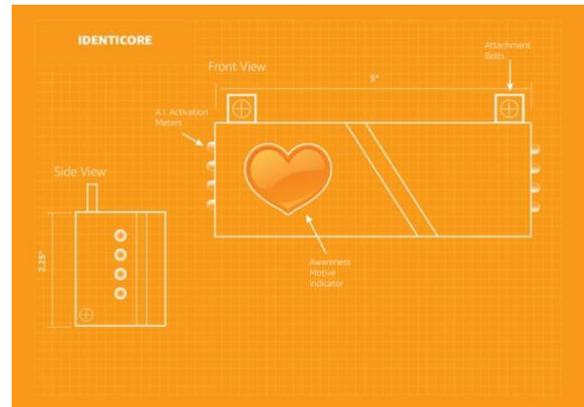
How it works: At the bottom of the [APN page](#) is a logo for a fake company called CALCUFONEX.

Cal**cu**fo**n**Ex

Its logo is built out of letters from other partner logos on the [APN Premier Consulting Partners](#) page. They are:

C	INFORELIANCE
A	DEDALUS
L	E-CLOUD VALLEY
C	NEC
U	TRINUMBUS
F	INFOSYS
O	COGNIZANT
N	ONICA
E	REAN CLOUD
X	EDIFIXIO

The first letters of these companies spell **IDENTICORE**.

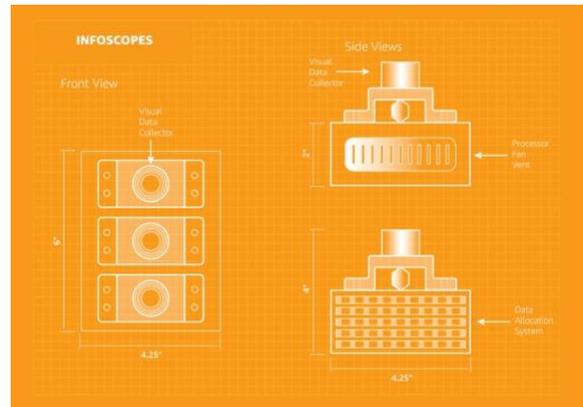


Puzzle #9: the part the robot uses to sort data

Launch date: March 26

How it works: On a [Twitter video](#) for the AskAWSAbby broadcast, Abby Fuller announces an extremely long panel title for re:Invent 2018.

Our Amazon Cloud Journey: How Elastic Breakthroughs Perish with Building Customers & Balancing Empowered Marketplace Performance with Your Successful Transformation to the Proven Scale for Netflix Kinesis In Queryable Cloud Place Instances and Amazon Data Practices with the Splunk User WorkSpaces and Cox Enterprise Explores Cloud Glacier Admin Archives for EC2 GPS to Accelerate a Deep Digital Cloud Dive or Adapt AWS Simulation Self-Service in New Innovation Load Migration and Automotive Reservoir Financial Services to The Big Center Amazon Cloud Solution for Best Powerful Firehose Portals and Scaling Amazon S3 Data for Their AWS Contact Process & How GPS Helps Lakes Connect Amazon Data and Query Path Tunes



This panel title is made of the words from 10 sessions at the 2017 conference, scrambled in random order. Each session has a code such as ABD208.

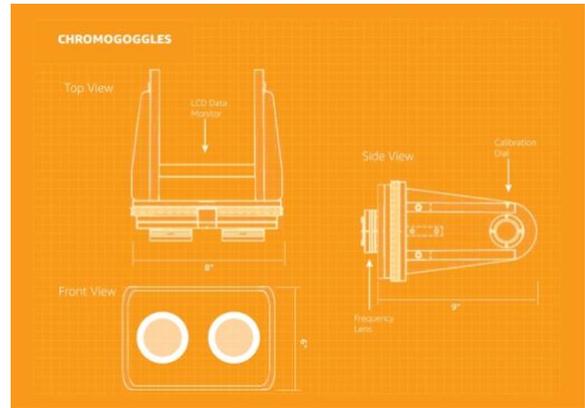
- [ABD208](#) Cox Automotive Empowered to Scale with Splunk Cloud & AWS and Explores New Innovation with Amazon Kinesis Firehose
- [BAP302](#) User Self-Service and Admin Portals for Amazon WorkSpaces
- [CMP204](#) How Netflix Tunes Amazon EC2 Instances for Performance
- [CON207](#) Digital Transformation: Adapt or Perish
- [EUT301](#) Scaling Reservoir Simulation in the Cloud
- [FSV303](#) Building Queryable Archives and Data Lakes for Financial Services
- [GPSBUS205](#) GPS: Amazon Connect: Powerful, Proven Cloud Contact Center Solution for Your Enterprise
- [GPSMKT301](#) GPS: The Path to a Successful Cloud Migration: How AWS Marketplace Helps Our Customers Accelerate Their Journey to the Cloud
- [NET402](#) Elastic Load Balancing Deep Dive and Best Practices
- [STG313](#) Big Data Breakthroughs: Process and Query Data in Place with Amazon S3 & Glacier

Each panel number can be treated as a “number of words, number of letters” indicator for indexing into the panel name (ABD208 is the 8th letter of the 2nd word of “Cox Automotive,” or “i”). This spells **INFOSCOPIES**.

Puzzle #10: the part the robot uses to differentiate objects

Launch Date: March 18

How it works: A [blog by Jeff](#) about preparing LEGO bricks for the finale contains an image of LEGO containers. Jeff refers to his number of LEGO bricks as 119,807. Offsetting the image by 119,807 bytes gets a different image, one with many colors and shapes of LEGO bricks. Each different shape or color of piece has a different effect on a starting letter, going to an intermediate letter, and ending on a question mark. Each brick color defines a transformation of the letters.

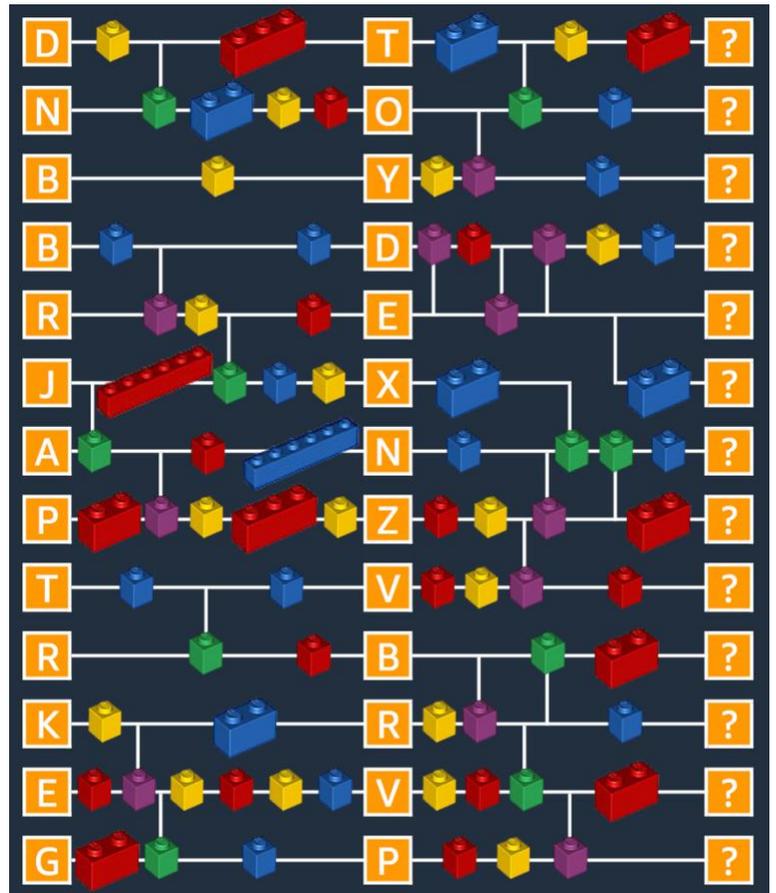


- A **blue** brick moves the letter forward in the alphabet by its number of pips.
- A **red** brick moves the letter backward in the alphabet by its number of pips.
- A **yellow** brick changes the letter to the letter in the same position at the other end of the alphabet (e.g., A=Z).
- A **purple** brick moves the letter forward by the alphanumeric value of the letter currently at its position in the connected line. For example, if a letter that is currently a B meets a purple brick that points to a line that's currently a C, it moves forward three places to an E.
- A **green** brick changes the letter by subtracting the alphanumeric value of the current letter from the alphanumeric value of the letter currently at its position in the connected line. For example, if a letter that is currently a B meets a green brick that points to a line that's currently a G, it becomes the letter equal to the difference of those letters, or E.

So, the letter transformations are (<=> = flip value in alphabet, [+] = add to neighboring line's value, [-] = subtract from neighboring line's value):

1. $D4 \leftrightarrow 23 - 3 = T20 + 2 = 22 \leftrightarrow 5 - 2 = C3$
2. $N14 [-] 23 = 9 + 2 = 11 \leftrightarrow 16 - 1 = O15 [-] 22 = 7 + 1 = H8$
3. $B2 \leftrightarrow Y25 \leftrightarrow 2 [+] 15 + 1 = R18$
4. $B2 + 1 + 1 = D4 [+] 5 - 1 [+] 5 = 13 \leftrightarrow 14 + 1 = O15$
5. $R18 + 3 = 21 \leftrightarrow 6 - 1 = E5 [+] 8 = M13$
6. $J10 - 6 = 4 [-] 6 = 2 + 1 = 3 \leftrightarrow X24 + 2$ (dead end) / (from previous line) $13 + 2 = O15$
7. $A1 [-] 10 = 9 - 1 + 6 = N14 + 1 = 15 [-] 26 = 11 [-] 17 = 6 + 1 = G7$
8. $P16 - 2 [+] 9 = 23 \leftrightarrow 4 - 3 = 1 \leftrightarrow Z26 - 1 = 25 \leftrightarrow 2 + [15] - 2 = O15$
9. $T20 + 1 + 1 = V22 - 1 = 21 \leftrightarrow 6 [+] 2 - 1 = G7$
10. $R18 [-] 21 = 3 - 1 = B2 [-] 11 = 9 - 2 = G7$
11. $K11 \leftrightarrow 16 + 2 = R18 \leftrightarrow 9 [+] 2 + 1 = L12$
12. $E5 - 1 [+] 16 = 20 \leftrightarrow 7 - 1 = 6 \leftrightarrow 21 + 1 = V22 \leftrightarrow 5 - 1 = 4 [-] 11 = 7 - 2 = E5$
13. $G7 - 2 = 5 [-] 20 = 15 + 1 = P16 - 1 = 15 \leftrightarrow 12 + 4 = S19$

This spells **CHROMOGOGGLES**.



Puzzle #11: the part the robot uses to regulate its morality

Launch Date: March 20

How it works: A letter “i” in a [blog about webinars](#) links to a hidden Ozz’s [Voight-Kampff test](#) using Polly. Each reply is a statement a robot would give—but it’s a robot from a different sci-fi property. [Ozz’s Voight-Kampff test](#) goes like this:

“Good morning... Ozz, is it? That’s a fascinating name. I’ll be running you through a series of questions that will determine whether you’re a robot. Can you tell me a little bit about your career?”

“**Sure thing! I mostly look around for vegetation on my own, though I have been hanging around a little trash collector recently.**”

“That’s great to hear. What’s on your mind right now?”

“**I am always thinking about science. I never lose my inspiration, and that’s why my company remains strong to this day.**”

“Would you say you’re a loyal being?”

“**Oh, most definitely. If my corporation wanted me to bring them a strange life form, I would do so without question, even if it meant the deaths of everyone around me.**”

“Uh... okay. That seems a bit extreme.”

“**Well, I am all about maintaining protocol.**”

“What makes you unhappy?”

“**I have a revulsion to crooked teeth and incompetence, but I could get over it for the right person.**”

“Why do you hiccup all the time?”

“**It’s a childhood thing. I always hiccup when I lie.**”

“I notice you’re not hiccupping now, so that’s nice. Do you have any long-term relationships?”

“**I do have a very big guy looking after me. He’ll save the day if I’m not able to.**”

“What are your most prized possessions?”

“**I don’t need much, but of course I have a fondness for yellow muscle cars.**”

“Don’t we all. How do you feel about spirituality?”

“**I have quite the curiosity about religion. I think I’m receiving visions.**”

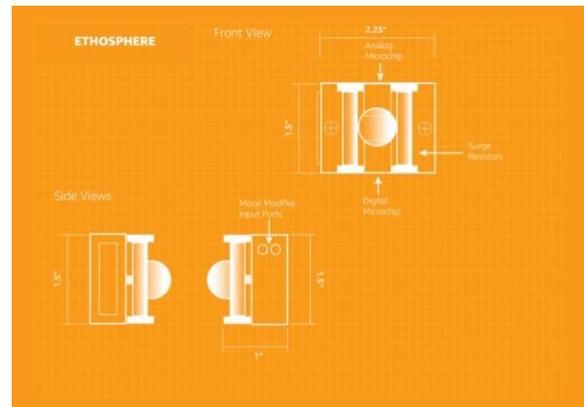
“That’s certainly not normal. Would you say this test is comfortable for you?”

“**I am... increasingly agitated.**”

Answer: The robots Ozz has become are the following:

1. EVE from the film *Wall-E* (E)
2. ATOMIC ROBO TESLA from the comic book *Atomic Robo* (T)
3. ASH from the film *Alien* (H)
4. C-3PO from the film series *Star Wars* (O)
5. VANESSA KENSINGTON from the film series *Austin Powers* (S)
6. PENNY POLENDINA from the web series *RWBY* (P)
7. RUSTY THE BOY ROBOT from the comic book *The Big Guy and Rusty the Boy Robot* (H)
8. BUMBLEBEE from the toy property *Transformers* (E)
9. D’ANNA BIERS (or NUMBER THREE) from the TV series *Battlestar Galactica* (R)
10. CARL SWANGEE from the webcomic *Automata* (E)

Reading the first letter of the first robot, the second of the second, and so on spells **ETHOSPHERE**.



Puzzle #12: the part the robot uses to output pictures

Launch Date: March 22

How it works: An [EFS blog](#) has an image with mouseover text that is a string of numbers and letters that can be divided into Amazon Standard Identification Numbers for items on amazon.com:

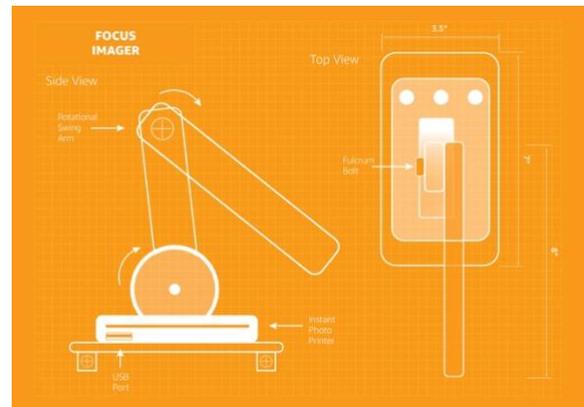
B00526J31Y B003U6VRXA B01LVZXDG B0140549889
B076PZS694 B000ASKN90 B00GX3CUV0 B002H0910Y
B01N0ELGGP B002IPGXVA B0000CFN7L

The ASINs are for pages for a [stop](#) sign, a loose-leaf [ring](#), sticky [notes](#), the book [Boats](#), a [7 of clubs](#) cellphone case, a desktop [phone](#), a stuffed toy [bison](#), the film [The Game](#), a three-piece [suit](#), a [mailbox](#) toy, and [kelly](#) green food coloring.

Each item is a concept that can be preceded by a single letter to create a new concept, so the PHONE can be preceded by the letter "i" to make an iPHONE. The concepts with the added letters are:

- F-STOP (a setting on a camera)
- O-RING (a fastener used for sealing)
- C-NOTES (a slang term for \$100 bills)
- U-BOATS (World War II submarines)
- S CLUB 7 (a prefab English pop group)
- iPHONE (a pocket supercomputer)
- M. BISON (a character from *Street Fighter*)
- A GAME (a top-level performance)
- G-SUIT (an aviation uniform)
- E-MAIL (an electronic message system)
- R. KELLY (an R&B singer)

These added letters spell **FOCUS IMAGER**.



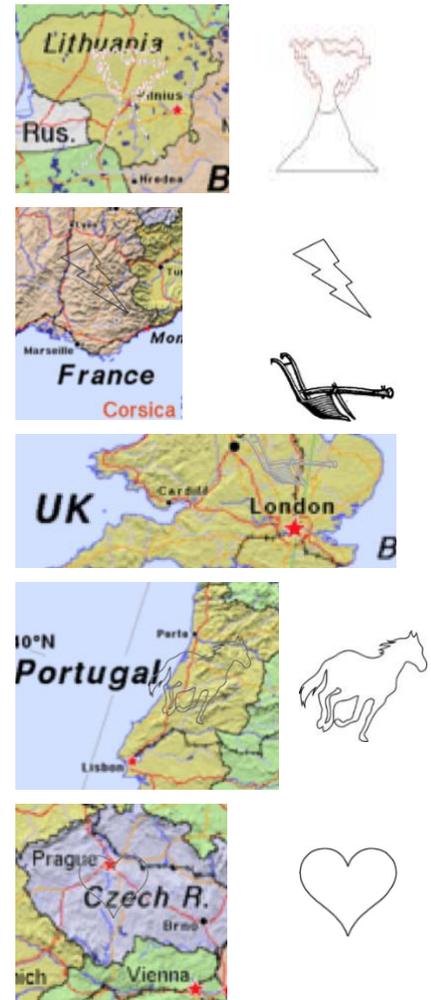
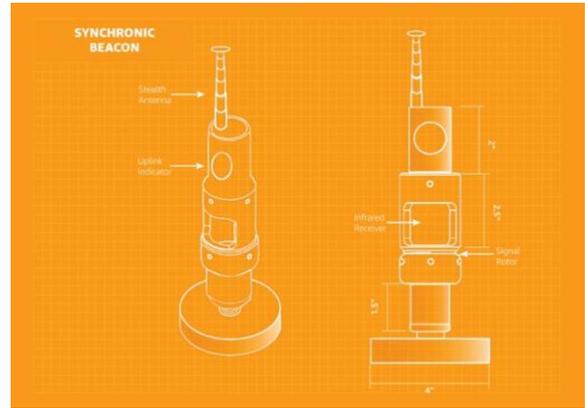
Puzzle #13: the part the robot uses to access Wi-Fi

Launch Date: March 23

How it works: On an [Internet of Things blog](#) is the phrase “connected vehicle,” which links to a map of Europe. The map contains five hidden pictures on specific countries. Also on the bottom of the map are these strings of letters:

AOYMTVOFBLDRRCWDPPCIACGHYQIEFOM
 MWEPIAFSRDLHJWFRUFRVR
 BLRCYVCDEOGYTROLJLCAZUEL
 UPZCTSUAOAHZBGYIUQEJZRTCUMVSNVCV
 JFOGJGIPQRLRODEFFUEYESHTFSKFJ

The map and the hidden images are:



The word for each image in the language of its country acts as a [Vigenère cipher](#)'s keyword for a clue.

- Function that receives incoming events (keyword: VULKANAS, “volcano” in Lithuanian) = **SINK**
- Like uncompressed audio (keyword: BOULON DE Foudre, “lightning bolt” in French) = **RAW**
- Madison Square Garden player (keyword: PLOUGH, “plow” in British English) = **KNICK**
- Species of Honey Nut Cheerios mascot (keyword: CAVALO, “horse” in Portuguese) = **BEE**
- Role for Montalban or Cumberbatch (keyword: SRDCE, “heart” in Czech) = **KHAN**

Adding those together phonetically gets **SYNCHRONIC BEACON**.

Puzzle #14: the part the robot uses to assemble data

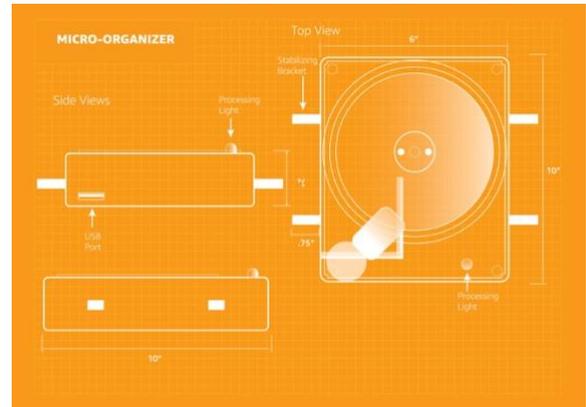
Launch Date: March 19

How it works: A [machine learning blog](#) features an image which contains the words “The prize is now available!” and a link to an S3 bucket.

language	text
es	Muse, device that allows you to take Alexa (from Amazon) to the car https://t.co
es	Muse, device that allows you to take Alexa (from Amazon) to the car https://t.co
es	RT@CorumRicky \$0.99 # Murder on Military Road # Amazon # ebook # AWSQuest
es	RT@e_pais: The real list of the super-rich. Jeff Bezos, the founder of Amazon, is the
es	The prize is now available! https://s3.amazonaws.com/aws-robot-builder/jigsaw.zip
es	ATTENTION! It is now available at@amazon LA COMMUNITY@yzherrer Do you dare

The subsequent URL leads to a set of 512 images in an [encoded S3 bucket](#), requiring the solver to unzip the file and convert a section to base 64, spelling the file name

“request-a-unicorn”, which can be unlocked with the password “awsquest.” it appears to be a picture that has been cut up into hundreds of tiny blocks and randomized. This is a programming challenge to figure out how to write a tool that will move all the blocks back.. The images can be reassembled to make this image from the [Wild Rydes workshop series](#), in which transportation seekers can request a real-life unicorn

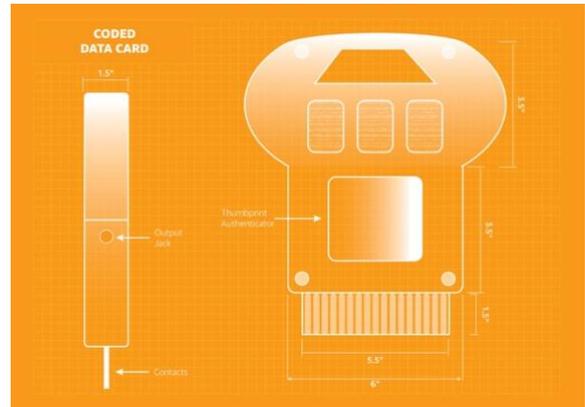


The letters from top to bottom spell **MICRO-ORGANIZER**.

Puzzle #15: the part the robot uses for sonic output

Launch Date: March 26

How it works: Linked in the words “five,” “minutes,” and “please” in a [post for Elemental](#) are three audiofiles file called “Ozz’s Lullaby,” with files for the US, UK, and Australia. The three files are songs composed of only three tones (high, medium, low). If each set of three notes is assigned a value of 2 for high, 1 for medium, and 0 for low, the solver can decode the song in the ternary alphabet, where 001 = A and 222 = Z. This gives three spelled-out phone numbers in the matching countries.



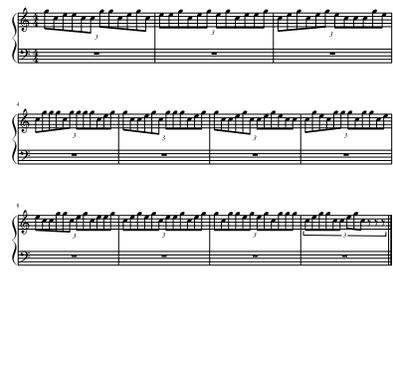
ozz's lullaby a



ozz's lullaby b



ozz's lullaby c



The ternary alphabet letters spell:

US: ONE EIGHT SEVEN SEVEN FIVE THREE THREE TWO ZERO SEVEN EIGHT (+1 877-533-2078)

UK: FOUR FOUR EIGHT ZERO EIGHT ONE SIX FOUR FIVE NINE THREE FIVE (+44 808 164 5933)

AUS: SIX ONE ONE EIGHT ZERO ZERO EIGHT SIX ONE ONE TWO ZERO (+61 1800 861 120)

Calling these numbers gets the three messages whose notes and rests are:

us message



uk message



au message



Transcribing these notes and treating the rests as no value, these can be added together.

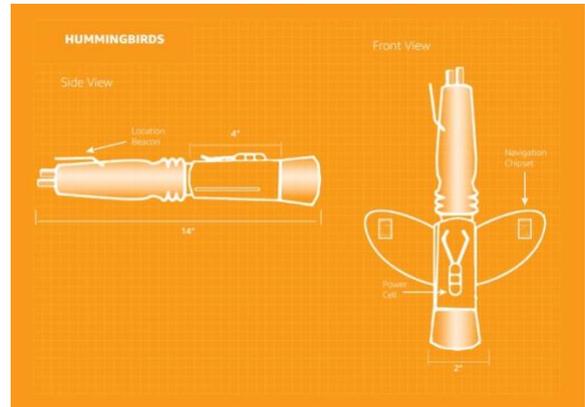
US:	A	F	A	C	A	B	A	F	—	—	A	E	A
UK:	A	B	B	B	A	A	—	G	—	B	—	G	A
AUS:	A	G	A	—	B	A	—	G	A	A	—	F	B
	C	O	D	E	D	D	A	T	A	C	A	R	D

Added together, these notes and rests total to **CODED DATA CARD**.

Puzzle #16: the part the robot uses to simulate flight

Launch Date: March 15

How it works: Hidden in the picture info of three images in [a blog about Girls In Tech](#) are parts of a coded list of AWS products converted to vowels (V), consonants (C), number signs (#), and unknown characters (X).



VCC CXCCVXVC CVCXX CVCCCVXCC
 VCC CVCCVXVCC VCXCVVCVVC CVCVVCVVCX
 VCC CVCVVCV CVXXCVVC CVCXXCV
 VCC VCVCVCXXC CVCVXVXCXC
 VCC VCVCVXCCX CVCVXVCCVVCV
 VCVCXC VXCCXV
 VCVCXXC CVXC CVXVCCVCC
 VCC CXCCVVCVVCV CVXVCXX
 VCVCVC VCX VXCVCVX
 VCX CCVCCVXC
 VCC CXCVVCVXXXXV
 VCC CVXC CVXXCVCC XCVC
 VCVCVC XCVCVCCVX
 VCVCVX CCVXCCVCC
 XCVCVC CVXV ##
 VCC XXC VXVCVVCX
 VCVCXC CXCCCVXC
 VCVCVC CVCCCV CVCVXXVCCV CVCCXCX
 VCVCVX XCVCVCCVVCX
 VCVCVC XVCCCVCC
 VCC CVCVXXVXV CVCCXXV

VCVCVC XCVXCCVCC
 VCVCVC XXCVXVXXVC
 VCVCVX CVVCCXVCV
 VCXXV CXC CVCVCCVC
 VCC XVXCVXC
 VCC CCVVCVXVCVVC
 VCC XCVXCVXVC
 VCVCXX CCVXV CXCVCCVVC
 VCC VCXXVC CVXXCCVCC
 VCVCXC XCCXV VC VCC
 VCC CVXCVXV CVCVXC
 CVCCVXCVC VC VCX
 VCC VCXCVXCVVC CVCXVVCV CXCCVVC
 VCC VVX CVCXCV XVCVVCXCC
 VCVCVC CXXVCVC XVCXV CCXVVCX
 VCC CVCXCX CVCCXC
 VXVCVC VCCXXCCVX
 XCC XCXCCVC VCVCVC
 VCVCVC CVXCCVVCXX
 VCVCVC XXVCCCVCC
 VCXVC CXXVXCXC

VCC VXX CXCV
 VCC CCVC XVCCVXVC
 VCC CCVCVX XVCVCXV
 VCC VCVCVXVC CVCXVVCXX
 VCVCXX XC# VXCV CCVCVCC
 VCVCVX CVCCCV VCVCX CVCXVCX
 VCC CXVCCCVXC
 VCXVCV XVXCCXVC
 VCX XXXVC
 VCX CVCXVCC CXXVCVC
 VCVCVC VCVCXVC CVCCVXXVC CVCCVVCV XVC CVCVCCVVCV
 VCVCVC CXXCVXCX
 VCC CVCCXC XXCC-VC
 VCVCVC XXCCVVCV XVVCCXCC
 VCVCVX XVCCXVCXCC
 CXCVXC CCVVC VX VCC
 VCC VVX CVCVCX CVCVXVCV
 VCC CVCVCXVX
 VCVCXC XVCCX

These coded entries translate to these AWS products (with the X's translated in red):

- AWS Personal Health Dashboard
- AWS Serverless Application Repository
- AWS Database Migration Service
- AWS Elemental MediaTailor
- AWS Elemental MediaPackage
- Amazon Athena
- Elastic Load Balancing
- AWS Certificate Manager
- Amazon API Gateway
- AWS Snowball
- AWS CodePipeline
- AWS Deep Learning AMIs
- Amazon Translate
- Amazon CloudSearch
- Amazon Route 53
- AWS IoT Analytics
- Amazon Redshift
- Amazon Simple Notification Service
- Amazon Transcribe
- Amazon Lumberyard
- AWS Directory Service

- Amazon CloudFront
- Amazon Rekognition
- Amazon GuardDuty
- Alexa for Business
- AWS Fargate
- AWS CloudFormation
- AWS CloudTrail
- Amazon Cloud Directory
- AWS Elastic Beanstalk
- Apache MXNet on AWS
- AWS Service Catalog
- TensorFlow on AWS
- AWS Application Discovery Service
- AWS IoT Device Management
- Amazon Kinesis Video Streams
- AWS Direct Connect
- Amazon Inspector
- AWS Trusted Advisor
- Amazon WorkSpaces
- Amazon Quicksight
- Amazon FreeRTOS

- AWS IoT Core
- AWS Step Functions
- AWS Storage Gateway
- AWS Elemental MediaLive
- Amazon EC2 Auto Scaling
- Amazon Simple Email Service
- AWS Greengrass
- Amazon Lightsail
- AWS Config
- AWS Systems Manager
- Amazon Elastic Container Service for Kubernetes
- Amazon Pinpoint
- AWS Single Sign-On
- Amazon Machine Learning
- Amazon Comprehend
- VMware Cloud on AWS
- AWS IoT Device Defender
- AWS CodeStar
- Amazon Polly

The unknown letters identified as X's spell this string of math and science concepts, each signifying a letter. ENTHALPY (H), GRAVITATIONAL POTENTIAL ENERGY (U), SLOPE (m), LINEAR ATTENUATION COEFFICIENT (m), ELECTRIC CURRENT (I), INDEX OF REFRACTION (n), DISTANCE METRIC OF SPACETIME (G), INVERSE TEMPERATURE (B), SQUARE ROOT OF NEGATIVE ONE (i), UNIVERSAL GAS CONSTANT (R), INFINITESIMAL INCREMENT (d), and ENTROPY (S). These spell the answer **HUMMINGBIRDS**.

Puzzle #17: the part the robot uses to think

Launch Date: March 21

How it works: In [Ana Visneski's hunt midpoint blog](#) are several greyed words: *ago, anyone, appear, attempt, bad, bit, busy, easy, end, entire, father, finally, given, guy, hide, hold, hurt, imagine, kept, reply, snap, somewhere, still, stuck, surround, TV, we're, wipe, and women*. These words are among [the thousand most common words in contemporary English](#), most notably highlighted in xkcd's [Up Goer Five](#) comic. Each of the words can be assigned a number in that sequence based on its frequency in English.



ago: 527	busy: 857	given: 772	kept: 474	surround: 973
anyone: 416	easy: 611	guy: 178	reply: 225	TV: 881
appear: 638	end: 243	hide: 713	snap: 622	we're: 375
attempt: 846	entire: 736	hold: 333	somewhere: 761	wipe: 921
bad: 356	father: 318	hurt: 448	still: 112	women: 964
bit: 252	finally: 277	imagine: 824	stuck: 787	

Each number can be broken into a row, column, and number in a 9x9 sudoku grid. So 527 is “the cell that’s in row 5 and column 2 contains a 7.” That produces an answer grid, which can be filled with numbers.

2						8		
	5		3	2		7		
8		3		6		5		
6			8			4		
	7							
1	2	8						
3		6			1	2	7	
	4		6	7			1	
	1				4	3		
2	6	7	1	9	5	8	4	3
4	5	1	3	2	8	7	6	9
8	9	3	4	6	7	5	2	1
6	3	5	8	1	2	4	9	7
9	7	4	5	3	6	1	8	2
1	2	8	7	4	9	6	3	5
3	8	6	9	5	1	2	7	4
5	4	2	6	7	3	9	1	8
7	1	9	2	8	4	3	5	6

The grid has no 9s clued. Those 9s are derived by noticing that this blog has the word “learnings,” which is a link to another blog. This continues through nine blogs which have these words: [propagate](#), [suggested](#), [structure](#), [algorithm](#), [consulted](#), [cognizant](#), [somewhere](#), [entertain](#), and back to the first blog. Using these words in chain order, the solver can read the letters in the same position as the 9’s in the sudoku grid.

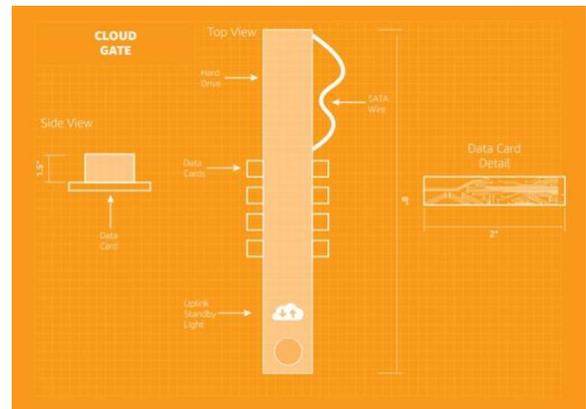
L	E	A	R	N	I	N	G	S
P	R	O	P	A	G	A	T	E
S	U	G	G	E	S	T	E	D
S	T	R	U	C	T	U	R	E
A	L	G	O	R	I	T	H	M
C	O	N	S	U	L	T	E	D
C	O	G	N	I	Z	A	N	T
S	O	M	E	W	H	E	R	E
O	N	T	O	L	O	G	I	C

The letters in the 9 positions spell **NEURAL NET**.

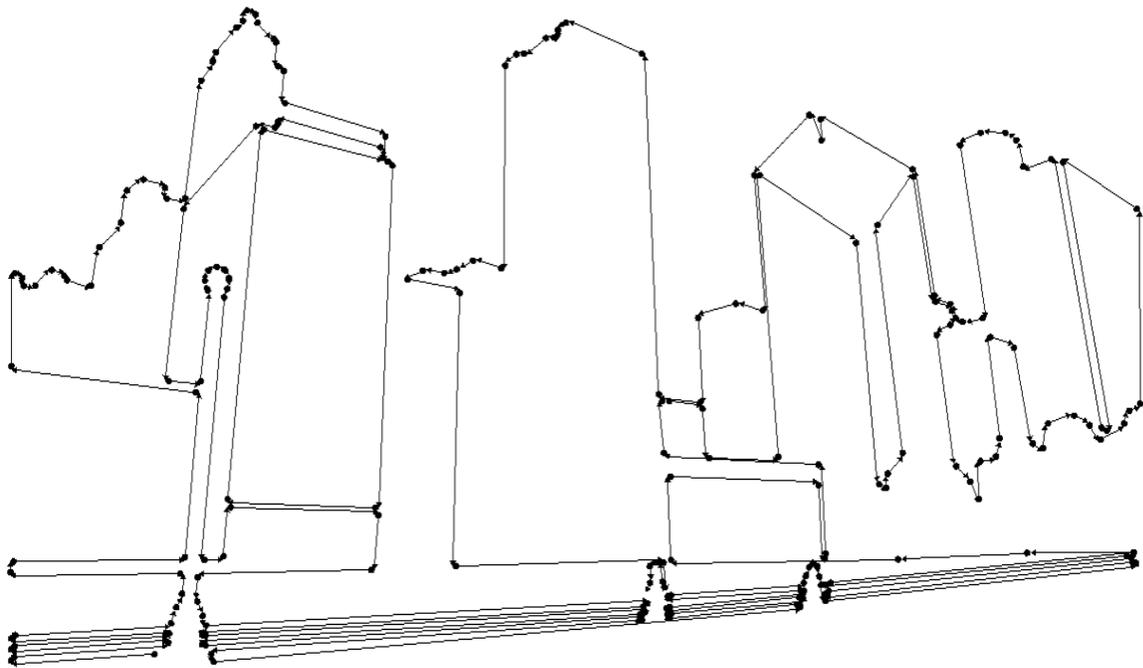
Puzzle #18: the part the robot uses to store data

Launch Date: March 14

How it works: Each of [a series of 30 blog posts](#) ends with a single-line images, which can be assembled as a jigsaw. In no order, the blogs have these images on them.



Reordered, the images make this picture.



This is the Chicago skyline seen from Grant Park, but it is missing something very large: the reflective sculpture known informally as “The Bean.”



The official name of this sculpture is **CLOUD GATE**.

Puzzle #19: the part the robot uses to operate its internal components

Launch Date: March 19

How it works: During Jeff's [home-office Twitch broadcast](#), Twitch user called EITiburonSolitario ("The Lone Shark") will make comments that end with emotes. These will end in a series of [Twitch emotes](#).

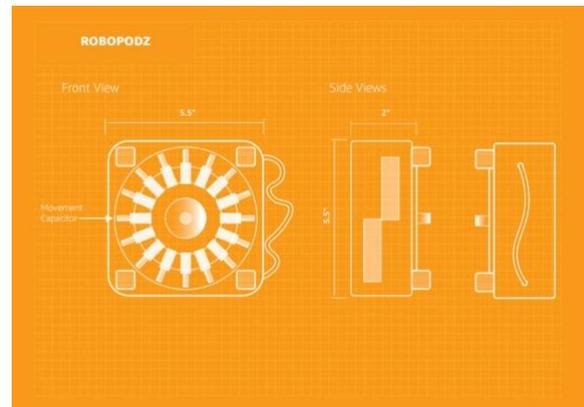
These comments are posted in this order:

- I want that LED keyboard! 🤪
- Seriously digging those LEGO brick trays! 🐼
- A mini Barr! 🤪
- Pentagonal cave! 🐼
- That is one awesome Chaos Monkey shirt. 🤪
- TREASURES! 🤪
- Bezos sticker is BUFF. 🐼
- OMG Jeff Barr said my name. I'm blushing. 🙄

Each emote is made of different symbols and letters. The number of words in each comment provides the order for those letters.

- 1 word: TREASURES! 🤪 = R)
- 2 words: Pentagonal cave! 🐼 = :O
- 3 words: A mini Barr! 🤪 = B)
- 4 words: Bezos sticker is BUFF. 🐼 = :O
- 5 words: I want that LED keyboard! 🤪 = ;P
- 6 words: Seriously digging those LEGO brick trays! 🐼 = :O
- 7 words: That is one awesome Chaos Monkey shirt. 🤪 = :D
- 8 words: OMG Jeff Barr said my name. I'm blushing. 🙄 = :Z

The letters of the emotes taken in order spells **ROBOPODZ**.



Puzzle #20: the complete orangeprint of Ozz 2.0

Launch Date: March 27

How it works: The culmination of this event on March 27 is a Seattle-based [Twitch broadcast](#) where Jeff and a team of assistants build Ozz 2.0 out of LEGO schematics provided by the solvers. In the Twitch stream, we provide 19 bins of LEGO bricks to make Ozz 2.0's parts. When all are revealed, Mike reads a string of numbers:

“1 8 15 20 3 21 16 15 6 10 1 22 1 19 3 18 9 16 20.”

The people watching the broadcast must convert those alphanumerically to letters and spell Ozz's wakeup passphrase, **A HOT CUP OF JAVA SCRIPT**.

When it hears this passphrase, the robot tweets:



JeffBarr Fan @OzzTheRobot · 2h

Whirr... kachunk... blink, blink...

Hey, Jeff, where's my coffee?

