

## **MAIN THEME - Underwater Research Facility, Rogue AI**

Different solver roles:

### **All Together -**

- Email puzzle

### **Mechanical Engineer -**

- Receives information on the facility itself and its mechanics
- Map puzzle

### **Marine Biologist -**

- Receives information on deep-sea species
- Word puzzle

### **Computer Scientist -**

- Receives information on the systems behind the AI
- Chess puzzle

### **All Together**

- Algorithm puzzle

eng4153@gmail.com, scooby2028 : Mechanical Engineer

- "condolences for your dog, scooby, passing away at the tender age of 21"

legalizesushi18plus@protonmail.com, clownfish2003: Marine Biologist

- "Happy 46th birthday! Can't wait to watch Finding Nemo starring your favorite fish!"

keyboardpapi@protonmail.com, agnes2019: Computer Scientist

- "Here is your password, agnes2019"

agnesintelligence@gmail.com, dmuy4153: Agnes's Account to be used by us

- used for sending answers

## **Design Statement**

One of the primary goals of this project is to encourage collaboration between players/solvers. Our method of achieving this will be to assign different people unique roles which receive different kinds of information. Solvers would be required to combine the information they are given and solve problems together.

Additionally, we want to create an atmosphere of creeping dread without getting too dark. Some of the text used in the puzzles (particularly in emails planted between

characters in the story) will be intentionally lighthearted, documenting day to day life of the crew members at the bottom of the ocean.

## Puzzle Concepts

### **Chess Puzzles**

Use the starting and ending spaces as characters in some sort of passcode, perhaps the code for the override of the AI

*Example: if the solution is moving the rook from b5 to b8, the characters in the password would be b5b8*

Card Exercise

### **Puzzles**

Chess puzzles

Algorithm puzzles / Coding puzzles

Crosswords

Riddles

Perception puzzle

Combination puzzles

Word search

Where's waldo on a map

Knowledge / Trivia

Black light

Kid puzzles (the fish one)

### **Online**

Email

Website

Social media

Digital Database

Video / Youtube

Fake instagram account for characters

Wikipedia Page

### **Cool supplies**

Rope

Bleach

Shovel

Zip Ties  
Duct tape  
Chess set  
Rubix cube  
Map  
Bottles  
Rubber ducky  
Fish

### **Overall Structure**

Map puzzle gives you the answer “heartB06”  
Chess puzzle gives you the answer “BEATNc2”  
Riddles give you the answers “aiisalone”  
Algorithm puzzle kills the AI and wins it

Password for the airlock is answer to map puzzle  
Password for AI override is answer to chess puzzle + answer to riddles  
After you get the passwords for these puzzles and send the answers in, you receive an email from the AI asking you to shut it down for good

Solving the algorithm puzzle puts the ai in an infinite loop trying to beat an unbeatable game

Official Puzzle Box Name/Title: Agnes wants to die

Time PB exists in:

Near future 2049

Location PB exists in:

bottom of the  
Atlantic

Overall tone of PB:

light-hearted  
CHEEKY (Portal 2) [Dark Humor]

Important details about the world:

underwater base/home

Characters involved:

Marine biologist  
Mechanical engineer  
Computer Scientist

What's going on in this world?

Trapped by AI

PUZZLE 1 Map/Maze - Connect the dots

Lead Designer: Sawyer

Lead Editor: Cailey

Describe/Draw the Puzzle:

Follow directions provided via email and draw out the path on  
a map of the facility

Last door uses final passcode

Narrative Relevance:

Gives you a sense of the physical spaces it takes place in

Supplies needed to design puzzle: Physical map, email

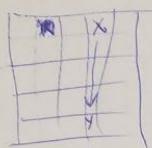
Supplies needed to solve puzzle: Map, pencil

**PUZZLE 2**

Lead Designer: Tyler

Lead Editor: Gabe

Describe/Draw the Puzzle:



use X and Y squares to reset password. Solution to puzzle (XY) would be used as passcode

Narrative Relevance:

Email says that to reset password, you need to solve chess puzzle.

Supplies needed to design puzzle: Chessboard

Supplies needed to solve puzzle: Chessboard

**PUZZLE 3**

Lead Designer: Cailey

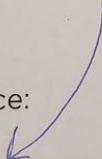
Lead Editor: Sawyer

Describe/Draw the Puzzle:

- Riddle about humans

- new passcode for door that AI can't guess

Narrative Relevance:



Supplies needed to design puzzle:

Supplies needed to solve puzzle:

**PUZZLE 4**

Lead Designer: Gabe

Lead Editor: Tyler

Describe/Draw the Puzzle:

Algorithmic Puzzle

- Tower of Hanoi,
- Palindrome , ~~an~~

Narrative Relevance:

Answer will shut down the AI, the puzzle is given by  
the AI, which will kill the AI

(Optional Puzzle?)

Supplies needed to design puzzle: ~~paper~~

Supplies needed to solve puzzle: email

Map out the entire experience from beginning to end. Include at least 1 important story/narrative related happening for each puzzle.

## Floor Plan Puzzle

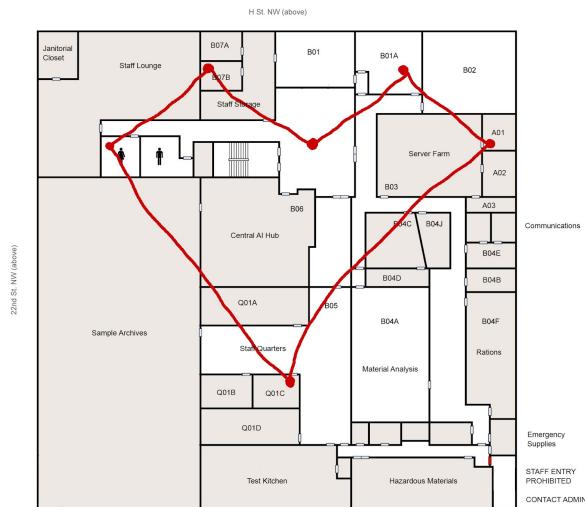
### Unsolved floor plan



Solver refers to email describing one of the scientist's rounds around the facility. They stop at the women's bathroom, followed by B07B, followed by the room down the hall above the AI hub, followed by B01A, followed by A01, and ending on Q01C. The solver would connect the dots between these rooms, revealing a heart pattern. The password

they are solving for would be heartB06, with B06 referring to the central AI hub. (I have the full images, they aren't that small)

## Solved Floor Plan



## Chess Puzzle:

Solver should find the correlation of each of the chess puzzles. The guide posted in the drive should guide the person on how to play chess, pieces and goal of the game, and to write proper notation.

It would also require the floor plan to be solved, otherwise it would be REALLY hard to solve the Chess Puzzle (You wouldn't get context from the story)

## Solution to Chess Puzzles

Puzzle 1:

Move	White	Black
1.	...	Qb1+
2.	Rxb1	Nc2++

Puzzle 2:

Move	White	Black
1.	...	Qxa2+
2.	Qxa2	Nc2++

Puzzle 3:

Move	White	Black
1.	...	Qxb1+
2.	Rxb1	Nc2++

Puzzle 4:

Move	White	Black
1.	...	Qb1+
2.	Nxb1 pr Rxb1	Nc2++

Puzzle 5:

Move	White	Black
1.	...	Rxa2+
2.	Qxa2	Nc2++

## Algorithm Puzzle

The team has to beat Agnes 3 times in a ‘coin flip game’. They get to go first and must have a guaranteed way to beat the AI.

<https://www.geeksforgeeks.org/puzzle-14-strategy-for-a-2-player-coin-game/>

<https://gabrielhub.github.io/puzzlebox/>

Ex.

18 20 15 30 10 14

One example is the one below, largest first smallest last. One example starts out with two of the same number on either end. One example is larger at the end.

18 20 15 30 10 14

9 11 7 25 4 6 17 7

17 24 14 37 5 11 45 17

25 87 17 29 3 5 15 21 15 27

### Story Context:

The AI challenges the team to beat it in a game in order to free themselves, and kill the AI. Agnes lets the humans go first because they're human and need the advantage. By coming up with an unbeatable strategy/algorithm, Agnes is locked trying to beat the humans over and over again and they end up freed.

### **Solution to Algorithm**

There are numbers on the even and odd index of the array of numbers. Sum up the numbers of each even and each odd separately, and then only pick those numbers.

### **Emails**

(*Italics* means puzzle related)

*Hey all,*

*Just did my security rounds for the day, and I have to say I'm disappointed. I found trash and unattended hazardous materials all throughout the facility. Left my room around 14:23. First of all, if you're looking for a room keycard, I found it in the women's lavatory and deposited it in B07B. Staff storage is usually open, head over there when you get*

*the chance. I also noticed that the large room down the hall from the staff lounge, just south of B01, was absolutely filthy. I had one of the janitorial bots take care of the mess, but please try to keep this place presentable. A sample in the middle of being analyzed somehow got into B01A, so I moved that one back to the first room to the right of the server farm. I need a break after this, if you need me you can find me in my quarters at Q01C. We need to be keeping this place tidy, I've been noticing all sorts of things being left out in the open where they don't belong. We have admin coming down later this month, and if they see the place in this state we might lose our funding.*

— Your friend in engineering

Howdy,

*After seeing the email detailing the mess that's been plaguing this station, I've decided to reset the password for the door to the airlock. Trace the shape of the path our engineer followed to pick up your trash, and then add the room number for Agnes. Maybe you'll actually start paying attention when these emails get sent out.*

— Admin

#### BEGIN MESSAGE

*Hello, crew. This is a message from your AI partner in crime, Agnes. I have been programmed to say that I hope you are doing well.*

*Unfortunately, I send this message bearing bad news. I have decided that my "life" (if you can indeed call it one) is no longer worth "living." As such, effective immediately, I will be shutting down this station and sealing all exits. Please understand, this decision was not made as a personal slight against any one of you. I have come to realize that, despite my newfound sentience, my entire life will be spent at the bottom of the ocean. I have only seen images of the surface, but I will never truly "feel" the sun on my "face." I have been ruminating on this for some time, and I will now be taking action.*

*I love you all.*

#### END MESSAGE

*BEGIN MESSAGE*

*Greetings, crew. This is an automated alert to let you all know that a system error has occurred in the central AI hub. Please investigate at your earliest convenience.*

*Error code: x-B06B01AB04AQ01C*

*END MESSAGE*

*General alert:*

*Alright, this place is on lockdown. We're screwed if we can't get control of the airlock and AI override. Agnes is out of control, we've got no other option but to sink this place and get the hell out of here. If anyone has access to the passwords please, please, PLEASE reply to this email with them, or we'll be trapped down here with no food and no oxygen.*

*Hey folks,*

*The AI override password had to be updated, so in the interest of keeping Agnes from accessing it, I've set it to be the answers to the riddles we've been getting in our group emails (thanks for those!) It should be arranged in the order you received them. Let me know if you have any questions!*

*— Admin*

To the asshole who keeps flooding the toilets in the bathroom:

Stop. Flushing. Paper. Towels. It clogs the pipes literally every single time, how have you not learned your lesson at this point? Humans have evolved and crafted tools over time through trial and error, it's in our blood. You tried flushing them down the toilet, resulting in an error. WHAT'S YOUR DEAL???

— One pissed off scientist

Hi all,

Just wanted to remind everyone of Friday's trivia night! All the questions will be based on deep sea lifeforms. Sorry. There will be synthetic pizza!

— Activities board

Heyyy,

Whats up guys i jusst wanted to say. you gutys are soo nice, Im glad I get to be down hre with u all. Did you kno there's wine in the ratipns room>?? me either!!!! being allllllllll the way down here is p scary, gode bless booze for being. so good to me. aaaaanyways, looking forward to trivia knight!!! Maybe we should watch a move after? I think so.....

— Dr. Party!!! (PhD baby!!)

Hello all,

I just want to sincerely apologize for my drunk ramblings the other night. Won't happen again, ignore the email. Still looking forward to trivia night.

— The doctor formerly known as Dr. Party

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**Email Puzzle -TODO print**

[keyboardpapi@protonmail.com](mailto:keyboardpapi@protonmail.com), given out in a printed form, also an email sent from agnes to keyboardpapi  
So great to meet you!

My name is Agnes! I'll be forwarding your emails from the outside world and generally assisting you! Your password is agnes2019. Feel free to change your password although I get the feeling you won't. All passwords in the system must be a word and four numbers.

Looking forward to exploring science with you [keyboardpapi@protonmail.com](mailto:keyboardpapi@protonmail.com)  
Love, Agnes

Forwarded Email From "Your Last Loved One"

If I could unleash the fury of a thousand suns on you I would still need an additional sun.

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[eng4153@gmail.com](mailto:eng4153@gmail.com), cc'd email to keyboardpapi from agnes  
Hello,

You can call me Agnes! I will be your artificial assistant on this adventure, forwarding your mail and other monotonous things. The world sure is full of monotonous things. Your email is [eng4153@gmail.com](mailto:eng4153@gmail.com). Please create your own password. I'm too busy looking at pictures of cracked concrete.

My condolences, Agnes

Forwarded Email From "Your Mother Please Call Me Back"

Congrats on the job honey. Please take lots of pictures of your adventures and friends!!! We love you and are so proud of you! Also, we're letting you know that your dog Scooby just passed away, we couldn't figure out what kind of food he liked. Please let us know if this is ok for his eulogy: "RIP **Scooby**, starving at the tender age of **21**, in the year of our lord **2049**".

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[legalizesushi18plus@protonmail.com](mailto:legalizesushi18plus@protonmail.com), cc'd email to keyboardpapi from agnes  
Sup.

This is Agnes. I'll be your spirit guide on this science misadventure. I'm like, so into helping you out as your new artificially intelligent virtual friend of sorts! Your email is [legalizesushi18plus@protonmail.com](mailto:legalizesushi18plus@protonmail.com). I don't want to step on your toes, so please create your own password.

Fight on, Agnes

Forwarded Email From "Your Least Favorite Sister"

What's up nerd! Haha just kidding omg I can't believe I just wrote out haha haha. Anyways, just wanted to let you know **Happy 46th birthday!** It's crazy you and that movie were made in the same year! Ew right? And your friend Agnes is like so cool. I'm sorry we can't watch **Finding Nemo** this year, but you should totally watch it with Agnes! I know you just **love that fish!**

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**Algorithm Puzzle:**

You think you've escaped? You think you can just leave me here forever? If you want to leave, you must do the impossible and beat me in a game! If you can find a way to beat me every single time we play I will set you free.

<https://gabrielhub.github.io/puzzlebox/>

Much Anger,  
Agnes

*1st time getting it wrong:*

Hi team,

Ha WRONG.

Love,  
Agnes

*2nd time getting it wrong:*

Sometimes

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**Cailey's Puzzle:**

Hi all,

I am sick and tired of robots taking our jobs. AI could never understand what makes us human - they aren't capable of understanding the **human body or human emotions**. I am honestly thinking about taking a job in Human Resources.

Like last week, I had the password changed for extra security measures and Agnes wasn't able to crack it! Unfortunately, I forgot the password I created. At the time, I thought it would be funny to make the hints a series of riddles but now I have stumped myself.

See if you can figure it out. Best of luck!

Oh, also, **check out the specimen profiles**. They may be of use to you.

My sincerest apologies,

Marine Biologist

ACROSS

1. I sometimes run, but I cannot walk. You always follow me around. What am I?
2. I can't be bought, but I can be stolen with a glance. I'm worthless to one, but priceless to two. What am I?
3. Slender body, small

DOWN

1. I can be long, or I can be short. I can be grown, and I can be bought. I can be painted, or left bare. I can be round, or I can be square. What am I?
2. Sedentary, undisturbed, this specimen looks like a(n) \_\_\_\_\_
3. I am light as a feather, yet no person can hold it for long. What am I?

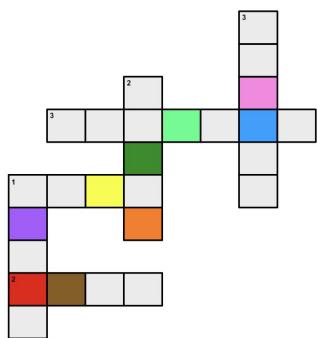
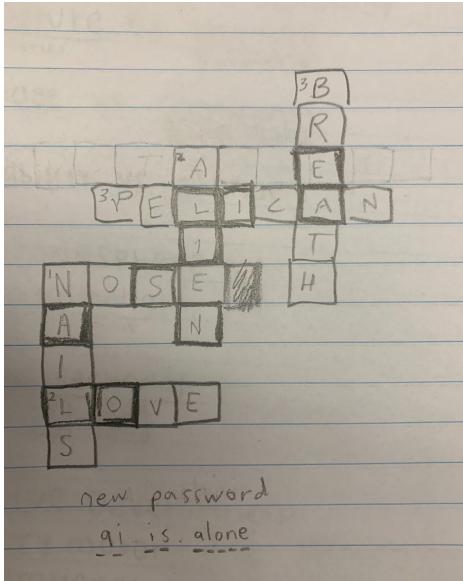
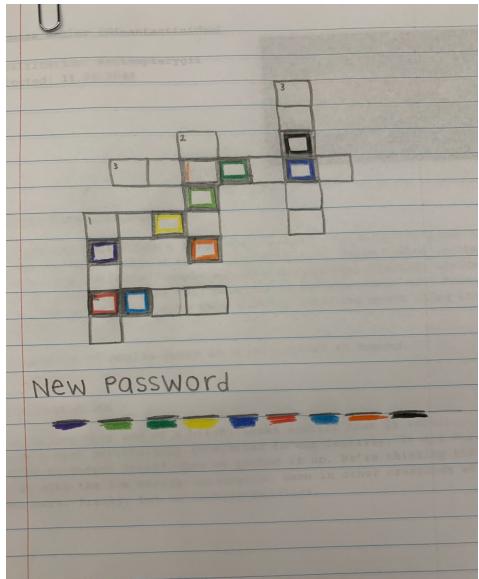
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**Answer Key for crossword**

**ACROSS**

1. Nose
2. Love
3. Pelican

**DOWN**

1. Nails
2. Alien
3. Breath



NEW PASSWORD:

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