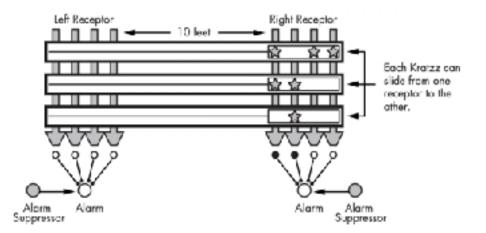
## PROBLEM: OPENING THE ALIEN LOCK

A hostile alien race, the Quarrasi, has landed on Earth, and you've been captured. You've managed to overpower your guards, even though they are enormous and tentacled, but to escape the [still grounded] spaceship, you have to open the massive door. The instructions for opening the door are, addly enough, printed in English, but it's still no piece of cake. To open the door, you have to slide the three bar-shaped Kratzz along tracks that lead from the right receptor to the left receptor, which lies at the end of the door, 10 feet away.

That's easy enough, but you have to avoid setting off the alarms, which work as follows. On each Kratzz are one or more star-shaped crystal power gems known as Quinicrys. Each receptor has four sensors that light up if the number of Quinicrys in the column above is even. An alarm goes off if the number of lit sensors is ever exactly one. Note that each receptor's alarm is separate: You can't ever have exactly one sensor lit for the left receptor or for the right receptor. The good news is that each alarm is equipped with a suppressor, which keeps the alarm from sounding as long as the button is pressed. If you could press both suppressors at once, the problem would be easy, but you can't since you have short human arms rather than long Quarassi tentacles.

Given all of this, how do you slide the Kratzz to open the door without activating either alarm?



## Constraints/ Facts:

- · Can hit only one suppressor / receptor at a time
- Can only be at 1 station at a time
- Every toggle has crystals every toggle is different in the crystal positions
- Each alarm station has to either be supressed or have 0 or 2 or 4 columns activated to avoid setting off the alarm
  - To activate a sensor, there must be an even number of crystals in that column

## Actions available:

- Hit the one alarm suppressor at the start or end station while you are there.
- Move a bar shaped toggle across somewhere along a track to receiving receptor
- Probable nothing is stated that we have to move the toggles to their full position

## Goal:

• Move all 3 bar shaped toggles to left receptor without triggering either left or right alarm

Solution 1 - ' a bit of reading between the lines '

1. Press and hold right alarm suppressor

- 2. Move one at a time each toggle out of the right station
- 3. Release right alarm suppressor
- 4. Move toggles to within reach of left station
- 5. Press and hold left station alarm
- 6. Move toggles to fully engaged positions
- 7. Release left station alarm.
- 8. Door opens / no alarm / escape.

// solution given by author is same one as the corn, goose and fox problem — he suggested the main crux was to recognize the patterns between the two problems and use the lessons from the first to solve the second. I hold that my solution fit within the parameters of what information was given.

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