INFOSEC

project Alias:

project review

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Who We Are

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What is Alias?

Alias is a programmable “parasite” for your smart home devices created by ***Bjørn Karmann.***

It is designed to give users more control over those smart assistants, in terms of both privacy and physical customization.

With Alias mounted on top of your smart assistant it plays a mixture of white noise and jumbled up words to stop your home device from listening when it is not supposed to.

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Goals of *Alias*

The goal of Project Alias is to give security minded users to option to enjoy the benefits of a smart assistant without sacrificing the privacy that comes along with it.

If all it takes is a Raspberry Pi, a cover, and some speakers, the price of privacy is comparably quite low.

Our goal of creating and presenting Alias is to show everyone here that it is quite easy to incorporate privacy back into smart devices.

That there can be a happy medium reached between privacy and technology.

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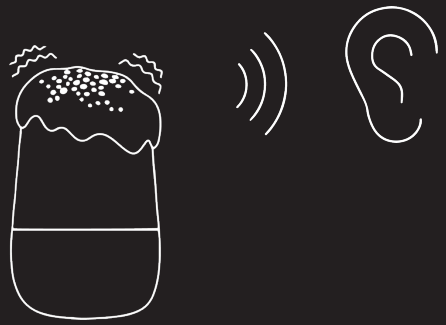
How does it work?

1

LISTEN

Get up close to hear the noise used to paralyze the home assistant.

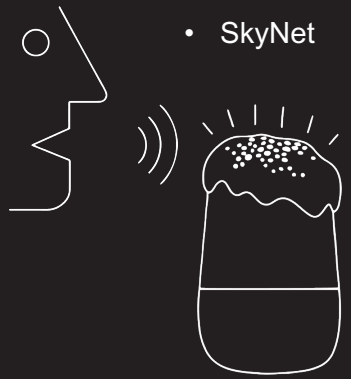


2

WAKE UP

Say one of the pretrained wake-up words:

- Parasite
- Computer
- R2
- SkyNet



COMMAND

Once Alias lights up you can ask the home assistant any command as usually

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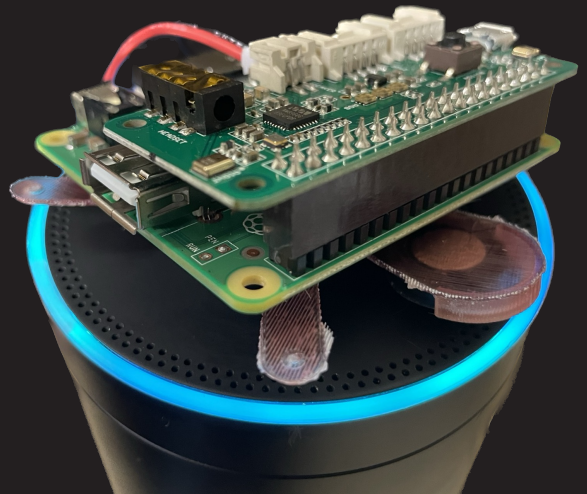
How does it work?



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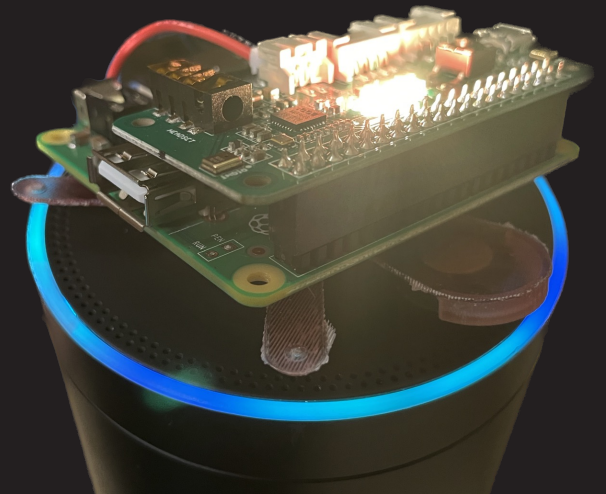
COMMAND

Once Alias lights up you can ask the home assistant any command as usually



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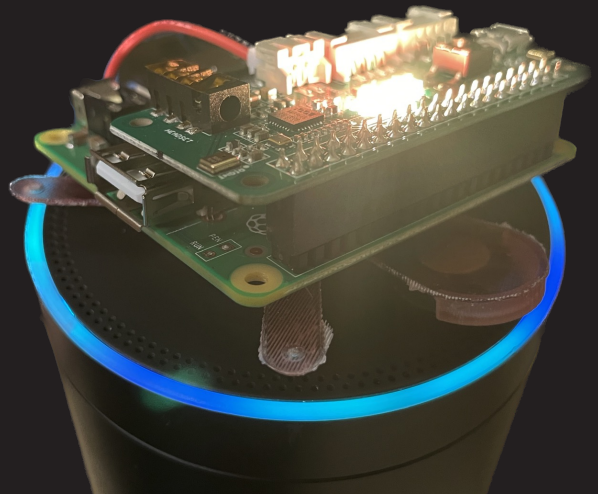

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COMMAND

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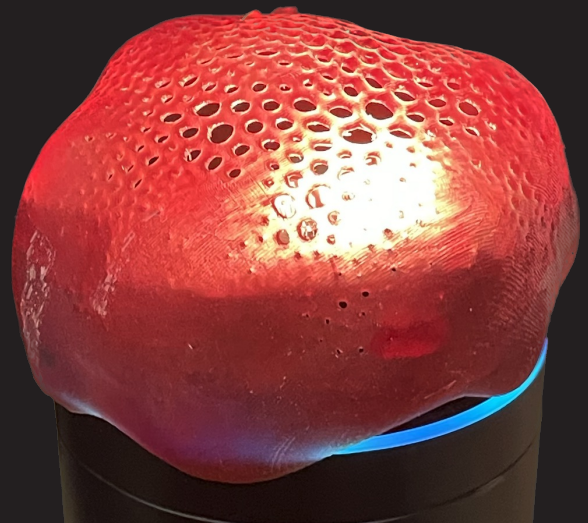
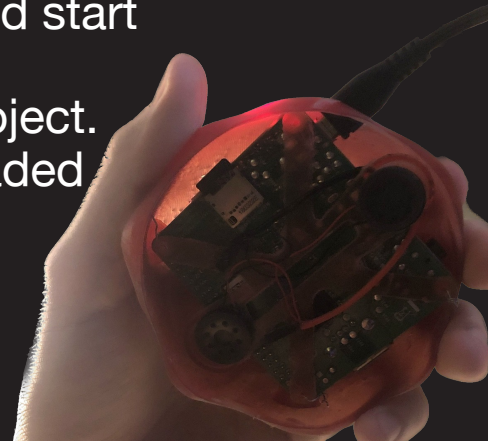


Assembly and Testing

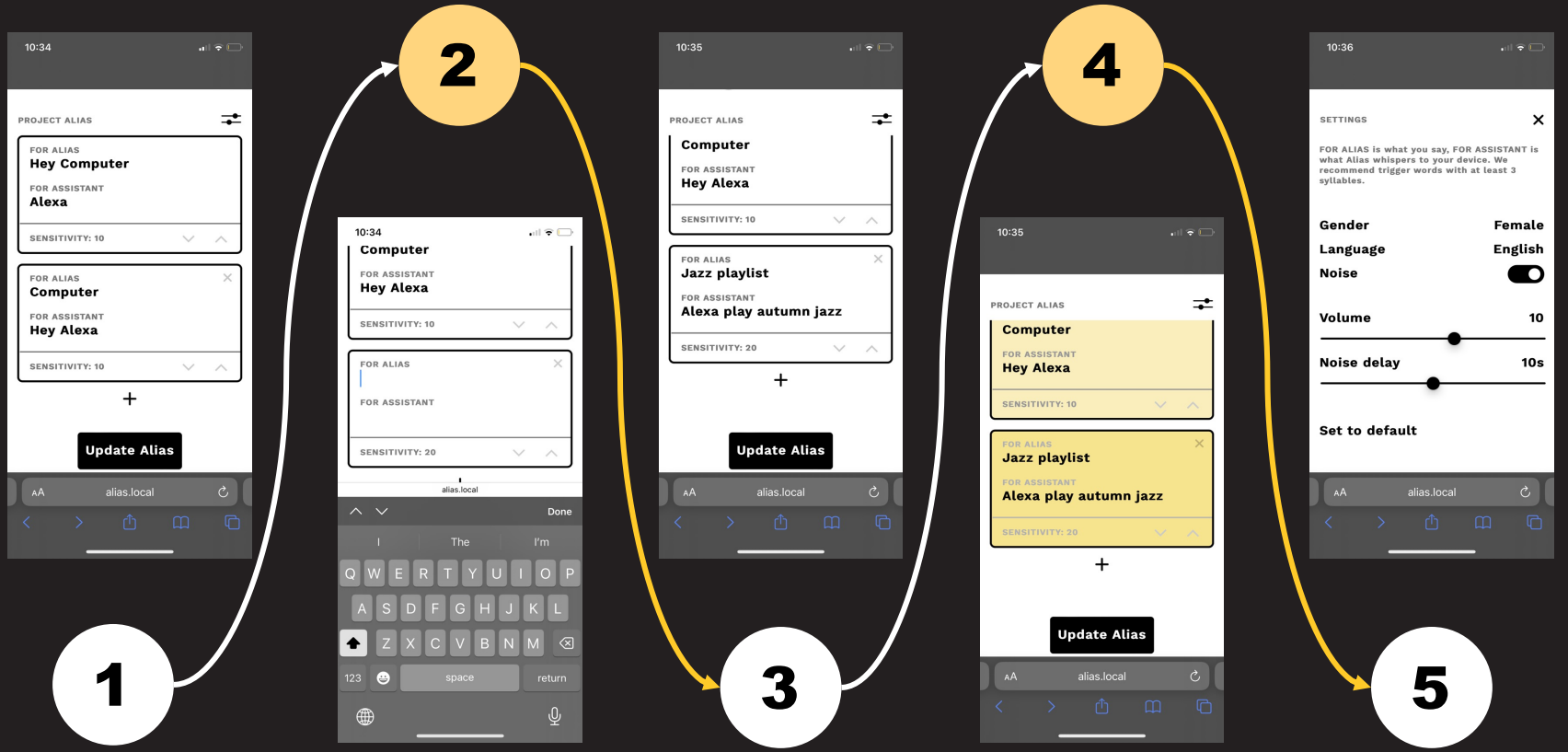
- Getting all the components set up for our favorite parasite was quite easy, and putting together the wiring, printing and testing was easily achievable.

- With Coles 3D printer, and some... passable soldering done by Conor, we were ready to finish assembly and start testing. But here we ran into the biggest obstacle of the entire project. Scheduling, the single most dreaded word in all of project planning.



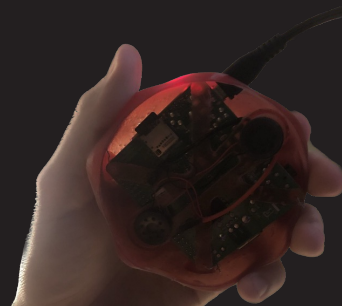
Testing *Alias*

Alias Set-Up

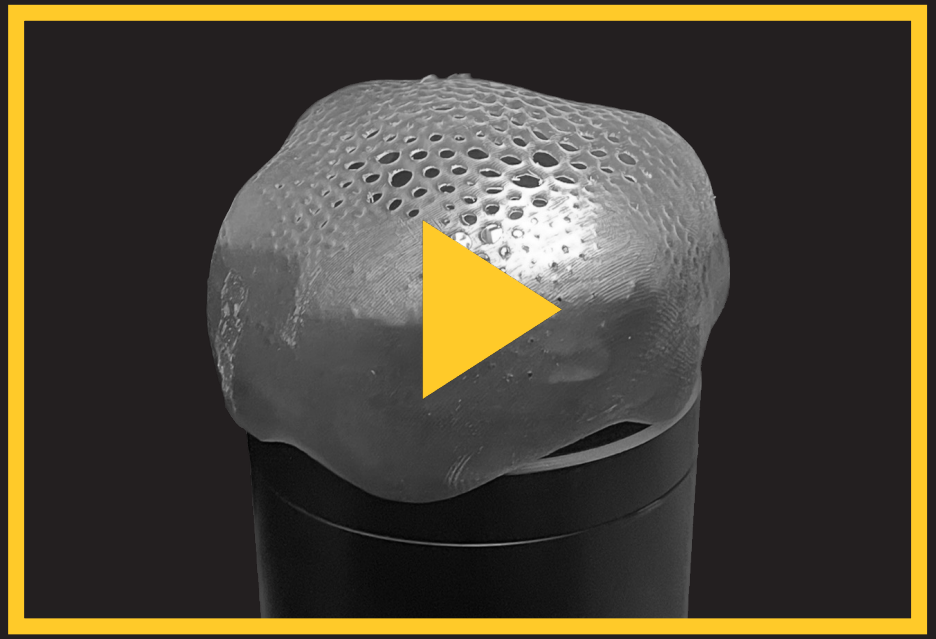

10:34
PROJECT ALIAS
FOR ALIAS
Hey Computer
FOR ASSISTANT
Alexa
SENSITIVITY: 10
FOR ALIAS
Computer
FOR ASSISTANT
Hey Alexa
SENSITIVITY: 10
+
Update Alias
AA
alias.local
1
2
10:34
Computer
FOR ASSISTANT
Hey Alexa
SENSITIVITY: 10
FOR ALIAS
FOR ASSISTANT
SENSITIVITY: 20
alias.local
Done
I
The
I'm
Q W E R T Y U I O P
A S D F G H J K L
Z X C V B N M
123
space
return
10:35
PROJECT ALIAS
Computer
FOR ASSISTANT
Hey Alexa
SENSITIVITY: 10
FOR ALIAS
Jazz playlist
FOR ASSISTANT
Alexa play autumn jazz
SENSITIVITY: 20
+
Update Alias
3
4
10:35
PROJECT ALIAS
Computer
FOR ASSISTANT
Hey Alexa
SENSITIVITY: 10
FOR ALIAS
Jazz playlist
FOR ASSISTANT
Alexa play autumn jazz
SENSITIVITY: 20
+
Update Alias
10:36
SETTINGS
FOR ALIAS is what you say, FOR ASSISTANT is what Alias whispers to your device. We recommend trigger words with at least 3 syllables.
Gender
Female
Language
English
Noise
Volume
10
Noise delay
10s
Set to default
5

Problems and Solutions

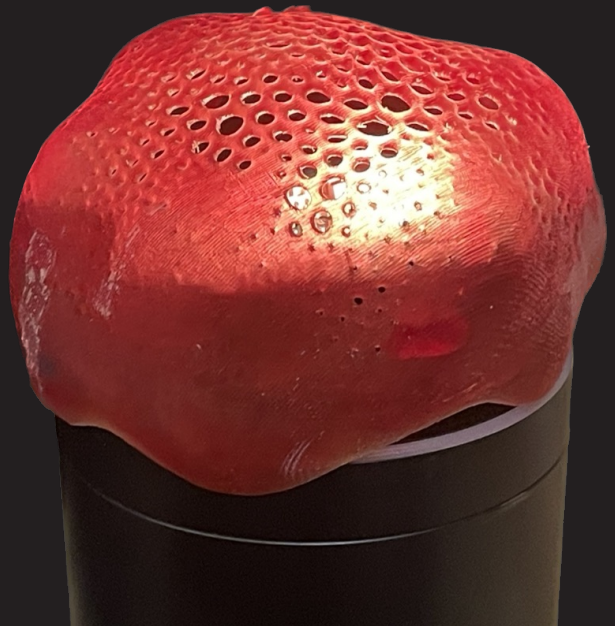
- **Our first roadblock was getting the required hardware**
  - Cannibalize parts from smaller broken electronics
- **Resin Printing made the part brittle and hard to use screws**
  - Super glue on super glue on even more super glue
- **Local audio processing is hard**
  - Tried to find more recognizable phrases to make processing easier
- **The hurricane ruined scheduling**
  - Working asynchronously and pushing timelines back



How about a Demonstration?



Any Questions?

Testing Alias

How about a Demonstration?