

TJBot Workshop

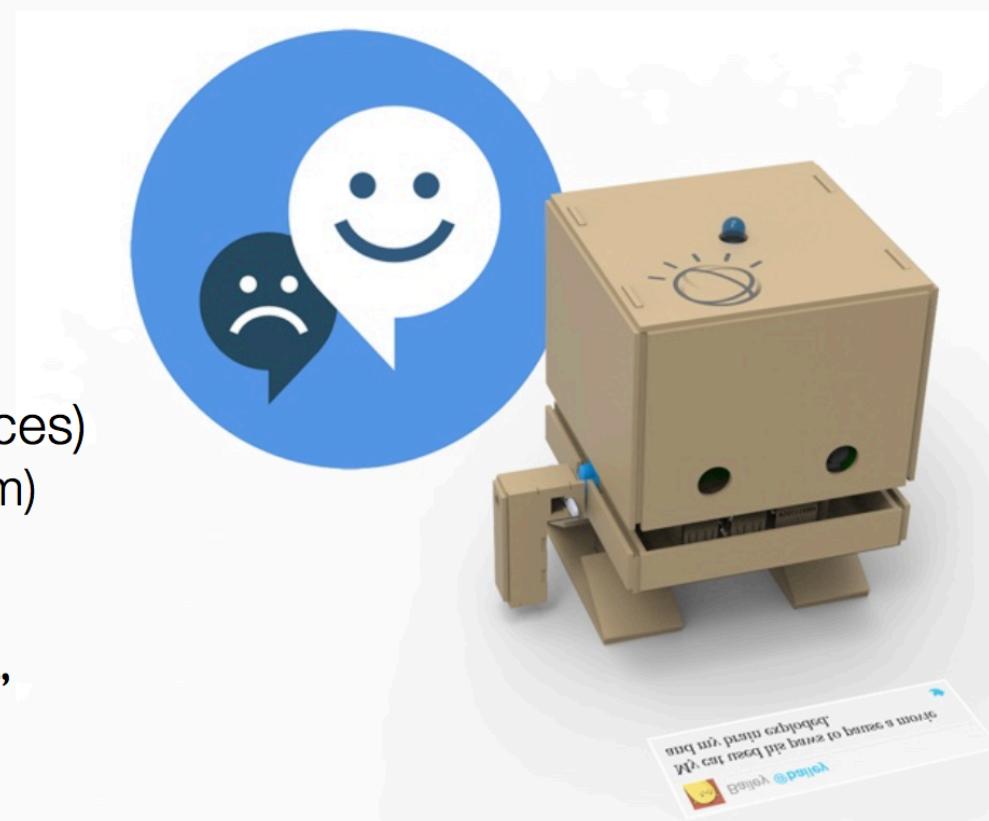


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Developer Advocate

What is TJBot?

- A cardboard robot
 - Simple, approachable
 - Open Source (design, code)
 - Cognitive (IBM Watson services)
 - Extensible (prototyping platform)

Components: Raspberry Pi, LED, Camera, Microphone, Speaker, Servo.



How Does Watson Enable TJBot?

Listen

Watson [Speech to Text](#) service converts spoken speech to text that can be analyzed

Speak

Watson [Text to Speech service](#) converts text to sound using various voices.

Understand Emotions

Watson [Tone Analyzer service](#) can infer the emotion within text. E.g.. it can tell if a message contains emotions like happy , sad, angry

See

Watson [Visual Recognition service](#) can understand the content of an image and describe it.

Understand Conversations

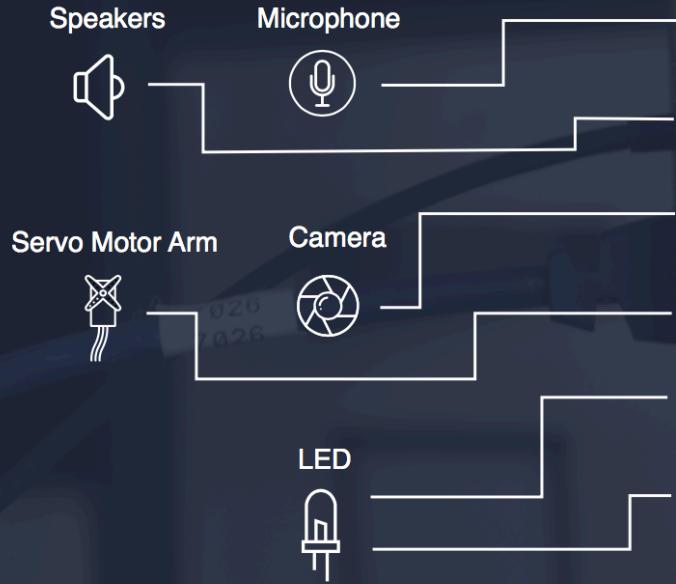
Watson [Conversation Service](#) can respond to users in a way that simulates a conversation between humans.

Translate

Watson [Language Translate service](#)



TJBot Sensors



Example Capabilities

Listen

Example Watson Services

Speech to text

Example Use cases

Sentiment Analysis

Speak

Text to speech

See

Conversation

Wave

Vision Recognition

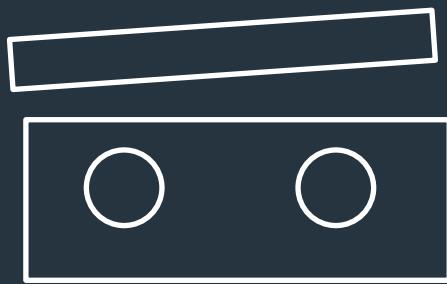
Show emotion

Tone Analyzer

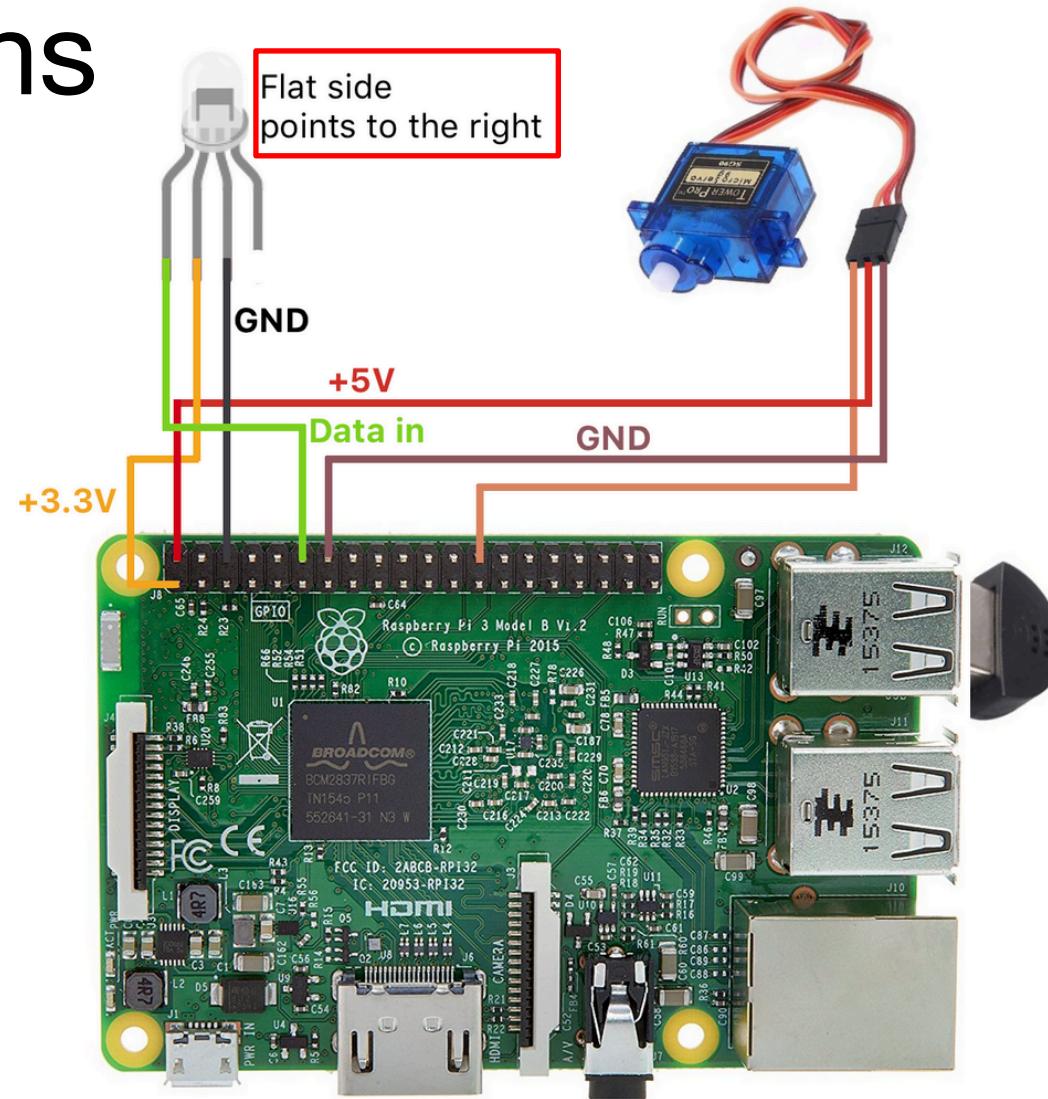
Shine

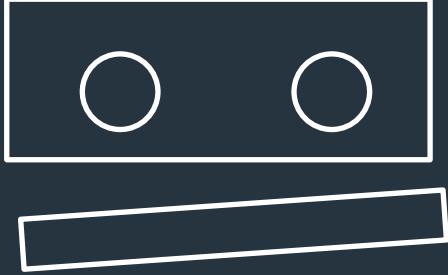
Programming TJBot

- Getting started
- Tying stuff together



Instructions





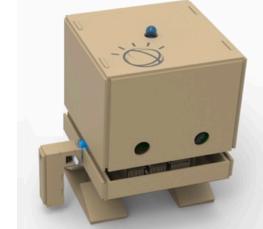
Wi-Fi

User: tjbottlab

Password: tjbottlab123

How do I Access my TJBot?

1. Turn your Raspberry on!
2. Place your mouse over the Wi-Fi symbol
3. Get your Raspberry IP
4. Go to the terminal in your pc/ PuTTY
5. Execute the command: `ssh pi@000.000.0.000`
6. Password: `raspberry`
7. You can also access your local node-red by opening the browser: `000.000.0.000:1880`



YOU JUST HAVE TO TRAIN CONVERSATION.

THE OTHER SERVICES ARE ALREADY TRAINED.

HOWEVER, YOU CAN ADD ADDITIONAL TRAINING TO VISUAL RECOGNITION AND DISCOVERY.

Commands

```
cd Documents/tjbot/recipes
```

```
ls
```

```
conversation README.md
```

```
sentiment_analysis speech_to_text
```

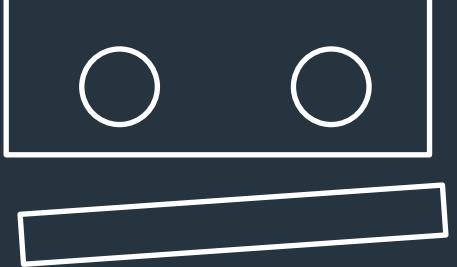
If you want to use conversation

```
cd conversation
```

```
sudo node conversation.js
```

If you want to use sentiment_analysis
cd sentiment_analysis
sudo node sentiment.js

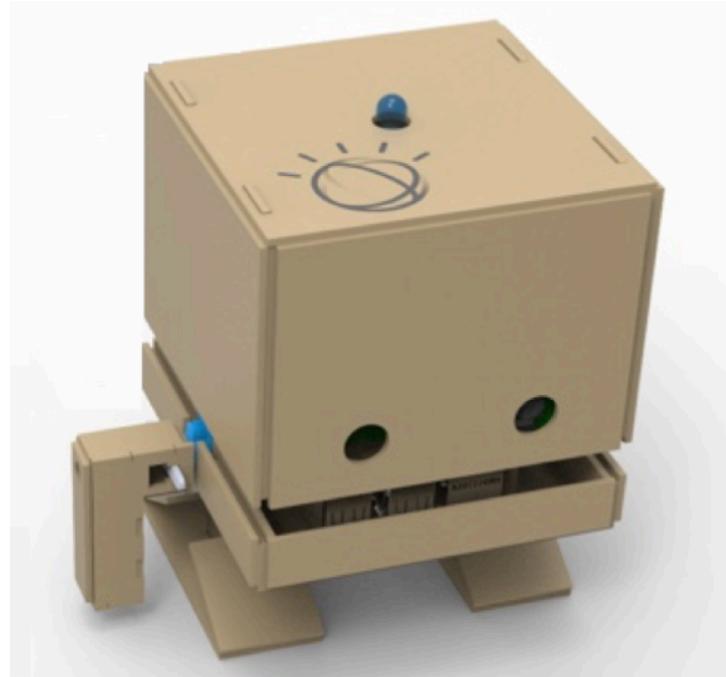
If you want to use speech_to_text
cd speech_to_text
sudo node stt.js



Let's Hands On!

Github to access content:

[https://github.com/
samazon/tjbot](https://github.com/samazon/tjbot)



Thank You!



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