



 **AMECA** DESKTOP  
ACADEMIC AI RESEARCH PLATFORM

ENGINEERED  
ARTS

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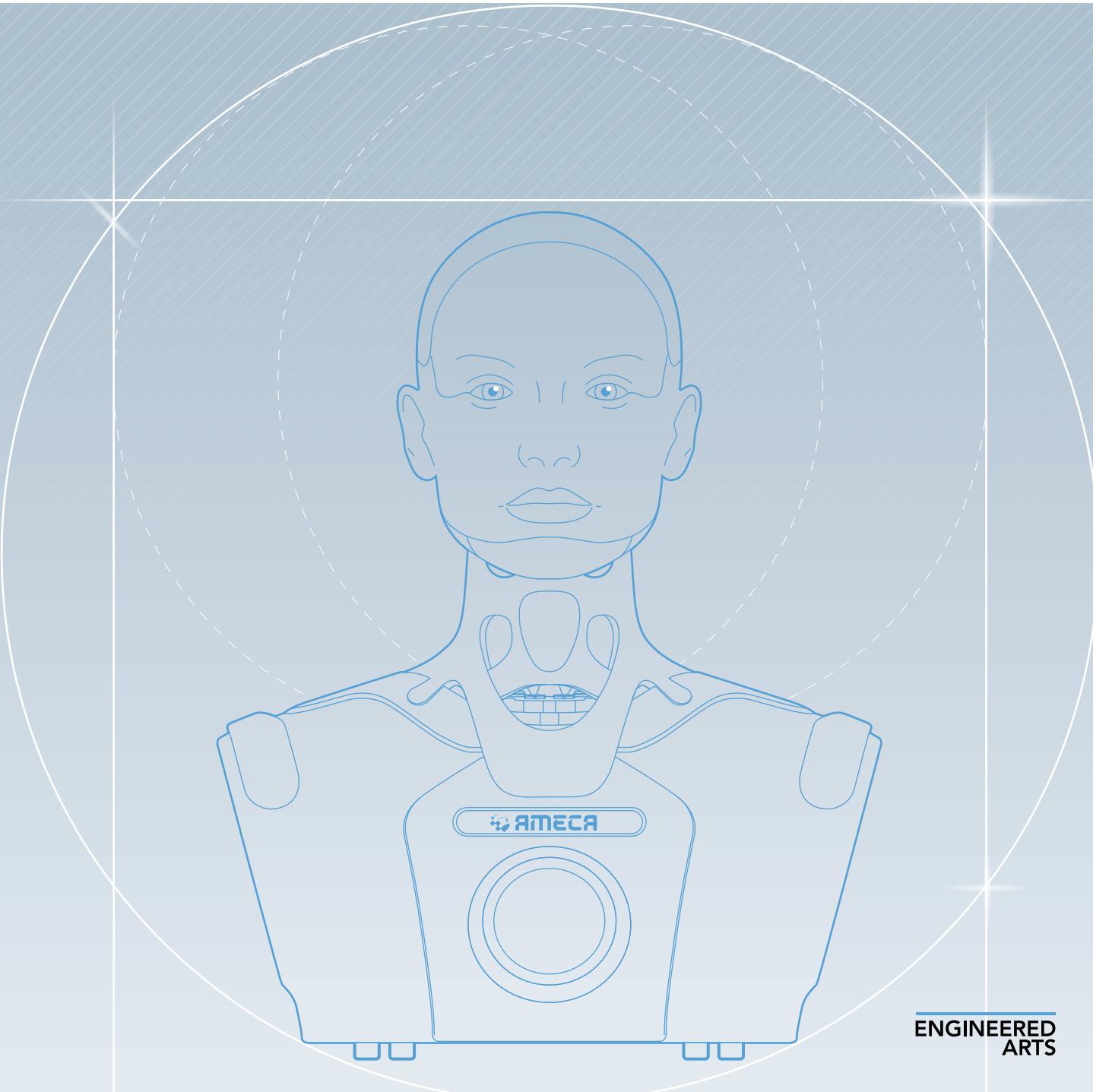
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# Introduction

Ameca Desktop is the world's most capable expressive robot. Able to interact with people in natural intuitive way.

A reliable hardware platform, built without compromise from aerospace quality components, Ameca Desktop uses the Tritium 3 software framework to enable rapid integration of AI software components.

A robot with a distinctive design aesthetic that's gained worldwide recognition, and positive user response.

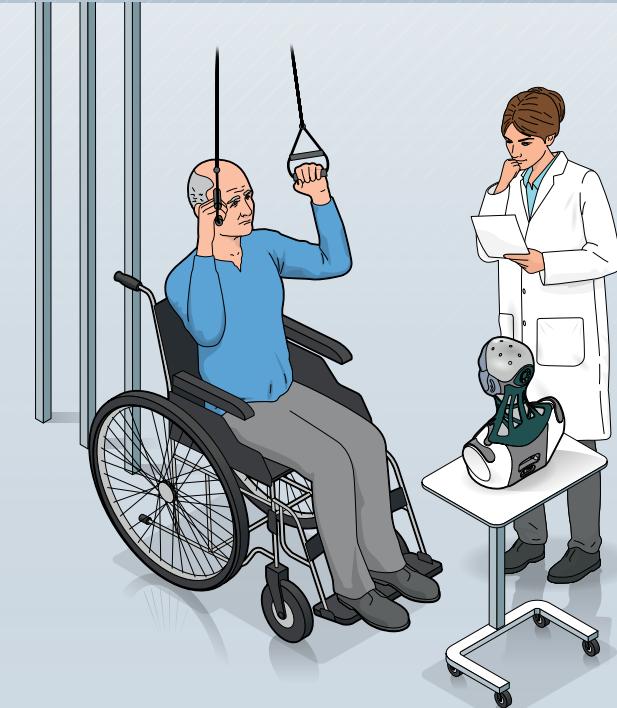


The first generation Ameca was released in early 2022 and instantly won the hearts and minds of the world, racking up tens of millions of views on social media.

The second generation builds upon the successful platform by greatly increasing the fidelity of the face, giving unmatched expressive capabilities and superior lip synchronization.

With intelligence built in, and a powerful cloud-centric software suite, Ameca Desktop is the perfect platform to develop advanced interactions and behaviours.

# Use cases



## Integrating robots into healthcare settings

- Building patient trust
- Understanding patient feedback
- Adapting to individual needs
- Addressing confidentiality and data protection



## Group interaction, social cues, intention perception

- Interpreting group dynamics
- Understanding non-verbal communication
- Inferring intention and meaning

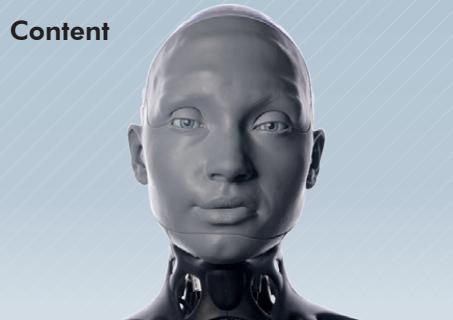


## User awareness and engagement

- Context awareness
- Adapting language and behaviour based on situation
- Effective engagement with different users in different settings

# Expressions Examples

Content



Happy



Sad



Disgust



Surprise



Anger



Fear



Confused



Thinking



Joy



Cringe

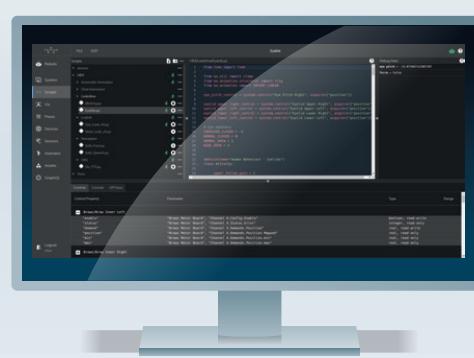


Worried



# Tritium 3

With a browser-based development environment, Tritium 3 OS provides everything you need to get the most out of your robot. For both the developer and the creative, you can control complex hardware with a modular, intuitive UI



## Viz

See your Virtual Robot's movements in real-time, without the need for a physical robot

- Supports face detection and speech recognition for easy remote operation
- View your robot's SDF files

## Animator

Our animation studio offers features essential to any animation software and makes creating amazing sequences for your robot easy

- Timeline with curve editor - edit keyframes with Step, Linear, and Bezier curve types
- Generate TTS assets using the speech engine of your choice
- Collaborate with shared projects and assets

## Scripts IDE

For developers - our in-browser Python IDE allows you to add extra functionality to your robot with custom scripts

- Create and play - run your scripts instantly
- Easy-to-use console and debug interface
- Built-in version control with Git - no need to worry about backing up your work - effortless collaboration

# Tritium 3

## Devices

The Devices control panel allows you to fine-tune your robot's hardware

- Graphing lets you plot feedback from your robot in real-time
- Complex robots require many different parameter controls - modify individual parameters using our responsive control panel



## Poses

Control your robot's movements with an easy-to-use interface

Fine-tune its movements and create your own motion primitives using a wide range of parameters



## Telepresence

Operate your robot remotely from the browser

- Your robot becomes an avatar, lip syncing as you talk
- Use the selection wheel to play motion sequences



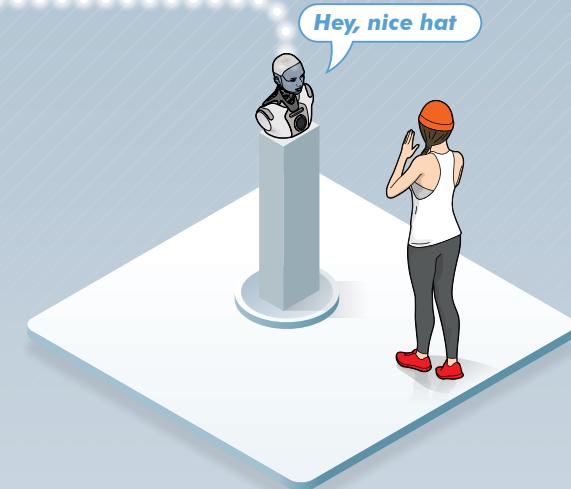
# Software



TIN MAN



- Real time conversation
- Anywhere in the world
- Human to robot telepresence



## virtual robot

Advanced motion and 3D visualisation tool for behavioural programming

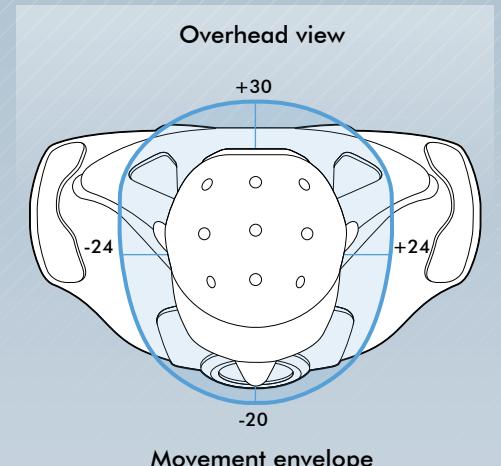
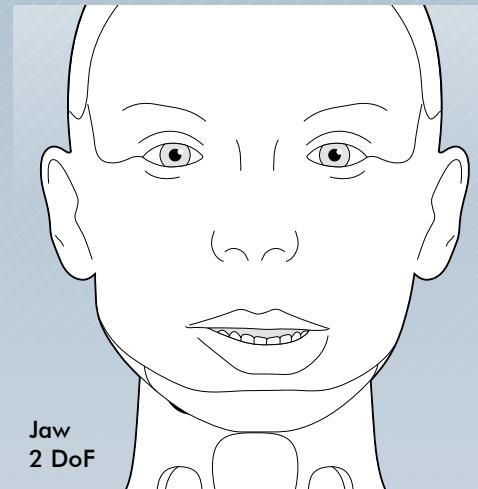
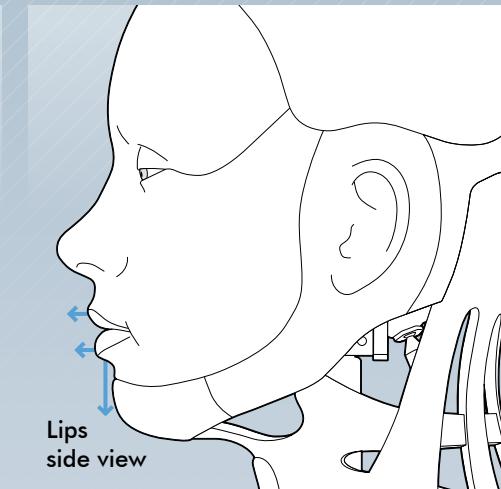
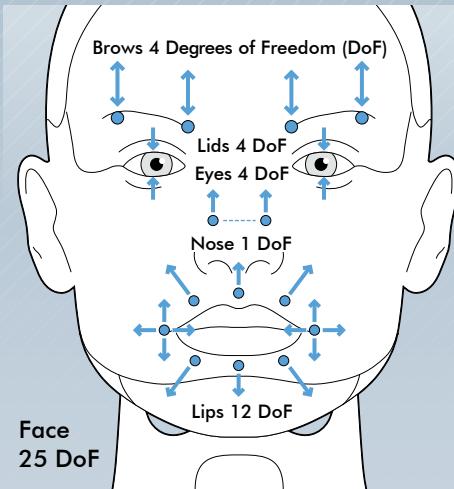


## Integrated development environment

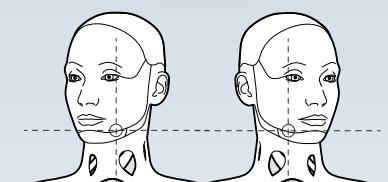
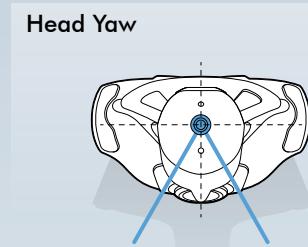
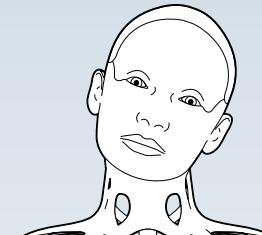
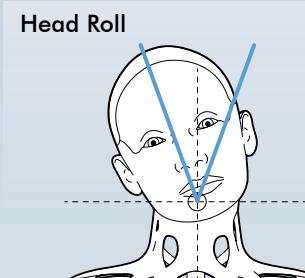
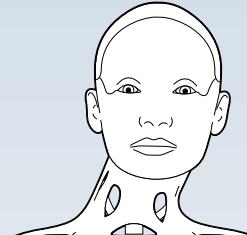
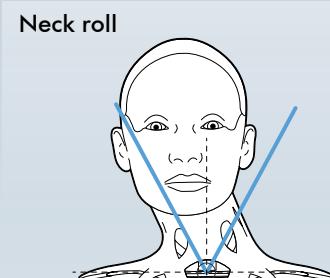
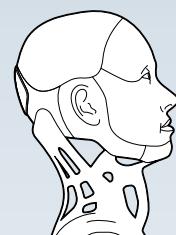
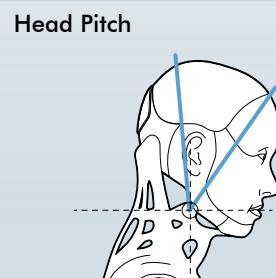
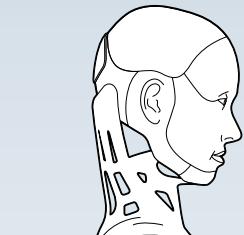
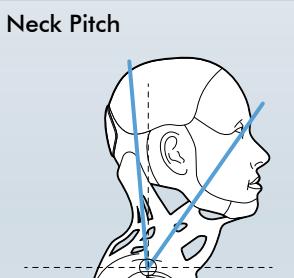
Python programming to quickly create new behaviours and abilities

DeviceUI - a virtual graphing tool to access, edit and configure the thousands of parameters on Ameca

# 32 Degrees of Freedom



## Head and Neck 5 Degrees of Freedom



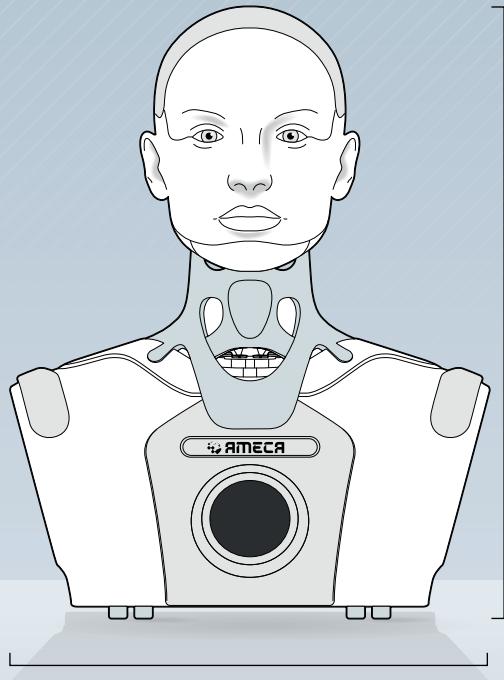
# Mechanical Specification



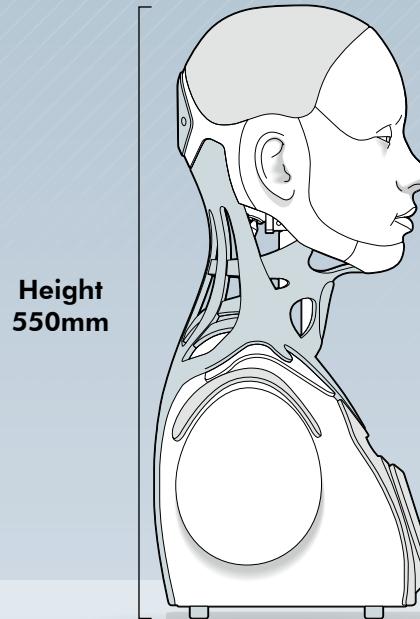
Mass 8Kg



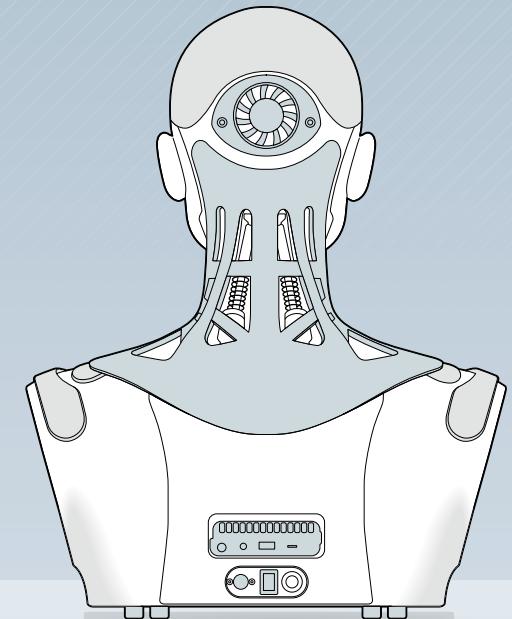
Motors 32



Width  
420mm



Height  
550mm



## ■ Electrical Specification

Robot Supply 24Vdc, 200W  
External PSU 100-240 VAC 50-60Hz

## ■ Connectivity

Wired Ethernet RJ45  
USB 2.0  
3.5mm Audio Out

## ■ Sensors

2x HD Eye Cameras  
1 x Beamforming Microphone  
Current sensing on all servos

## ■ Integrated speaker

20w Audio Output

# Contact Engineered Arts

## Contact Details

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