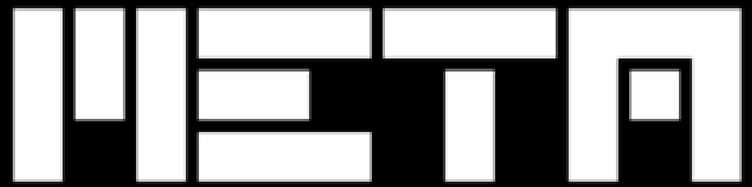
Building the natural computer

Ashish K. Ahuja, PhD
Product Manager



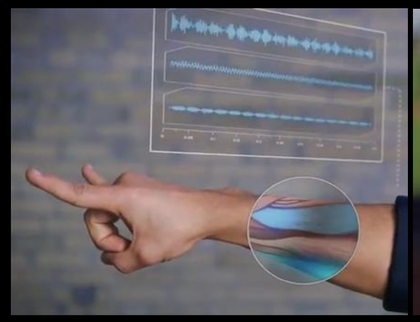
Building the natural computer

Building the natural computer

Our body is the input

Anything can be the output

Wearable



Virtual Reality

Augmented Reality

Overlay the virtual world on the real world

Lead the next evolution of personal computing through AR, replacing smartphones and tablets with a more natural to use system set entirely in a pair of glasses

Meta Glasses

Offers users a complete augmented reality experience:
See, create, and interact with virtual objects and apps inserted in o nes’ real environment

- **Hardware:** See-through head mounted display operated and controlled by hand gestures
- **Software**: Application programming interface (API) based on Unity 3D

Meta: Company Profile

- Team of 70 people (mainly scientists and engineers)
- Recently raised $23M in funding
- Selling Meta 1 developer kit since Q3 2014

Founder

MERON GRIBETZ
CEO

Advisors

STEVE FEINER
Lead Advisor

50+ Employees

BEN SAND
COO

RAY LO
CTO

STEVE MANN
Chief Scientist

JAYSE HANSEN
Director of Interfaces

SOREN HARNER
Chief Product Officer

STEFANO BALDASSI
UX and Perception Scientist

What can you do with the Meta 1?

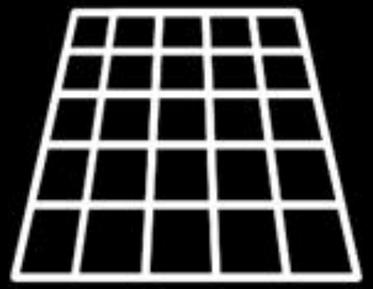
How does it work?

See-through
stereo glasses

Dolby 3D audio

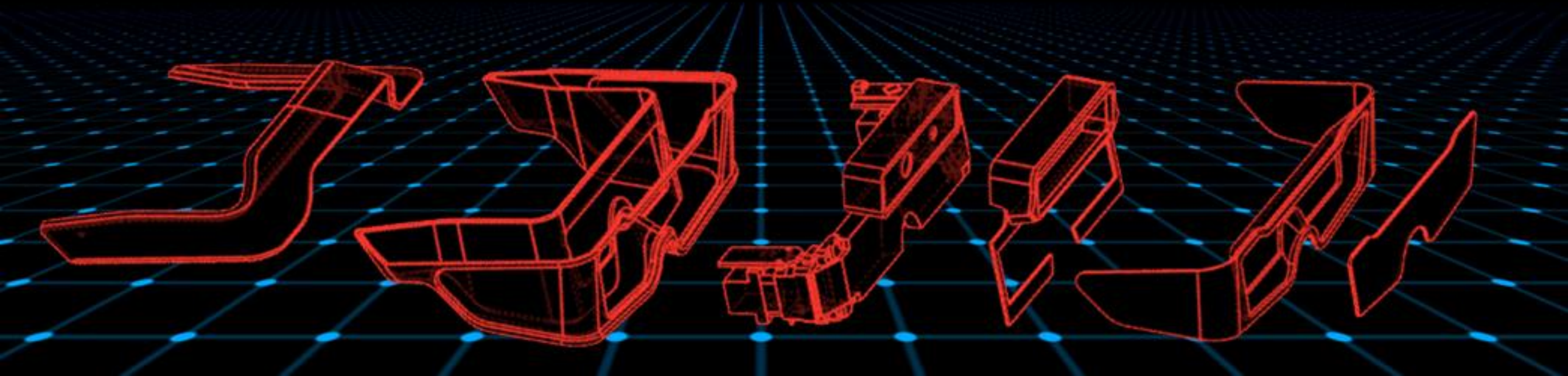
RGB-D camera
gesture
tracking

Stereo mics



RGB-D camera
point cloud
surface
tracking

IMU
head tracking
360°
motion



Meta Glasses

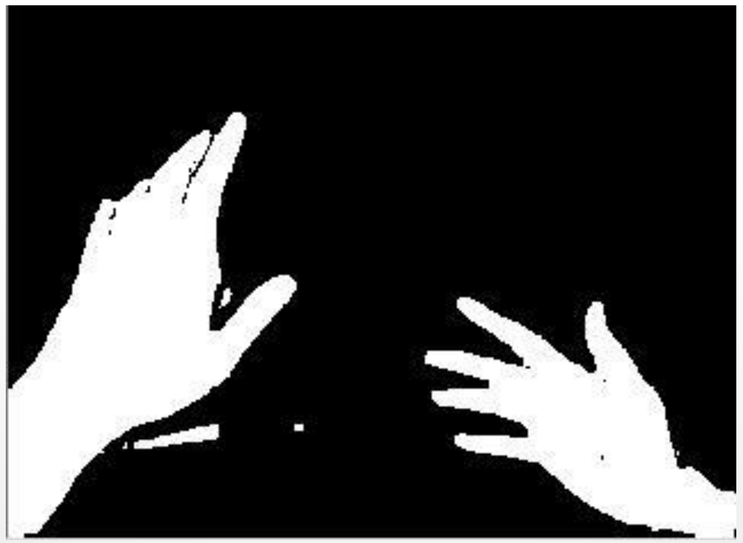
3D see through display
- Resolution: 960 x 540 pixels (qHD)
- FOV Expander Lens: 35 degree field of view
- Shade Lens: 23 degree field of view

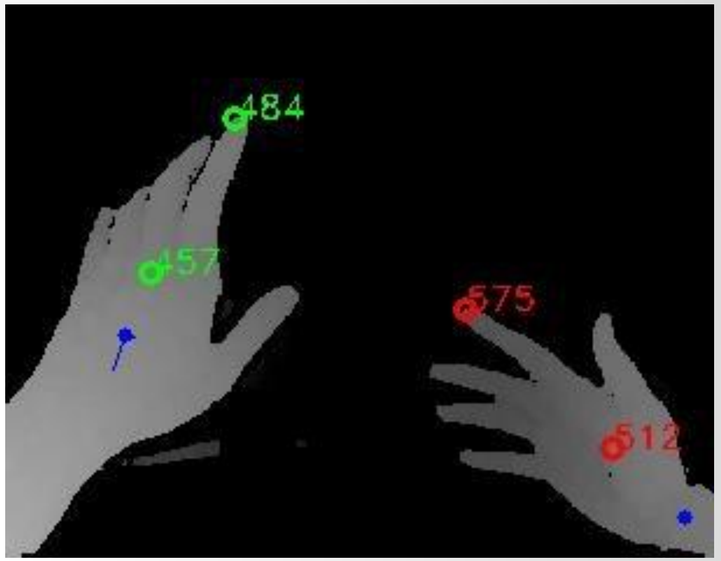
Camera
- 3D Time-of-flight depth camera, with 320x240 (QVGA) pixel resolution
- Color (RGB) Camera with 1280x720 (MJPEG) resolution

Head Tracking
- 360 degree tracking
- 9-axis Inertial Measurement Unit with accelerometer, gyroscope and compass

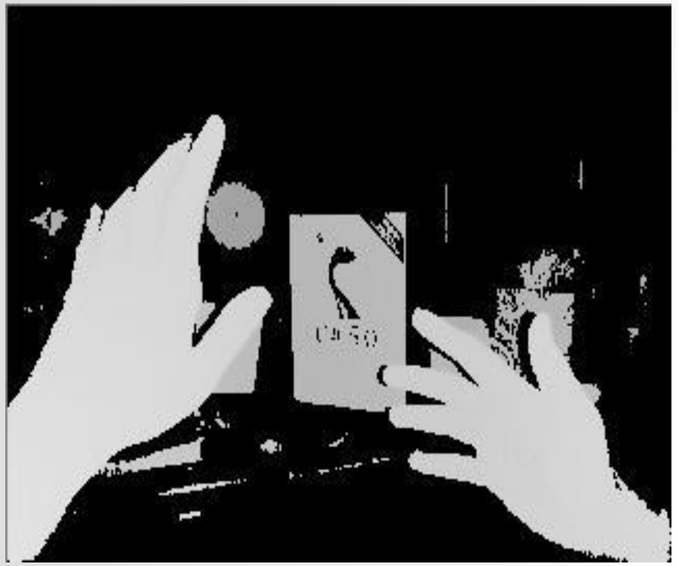
Tracking and Gestures

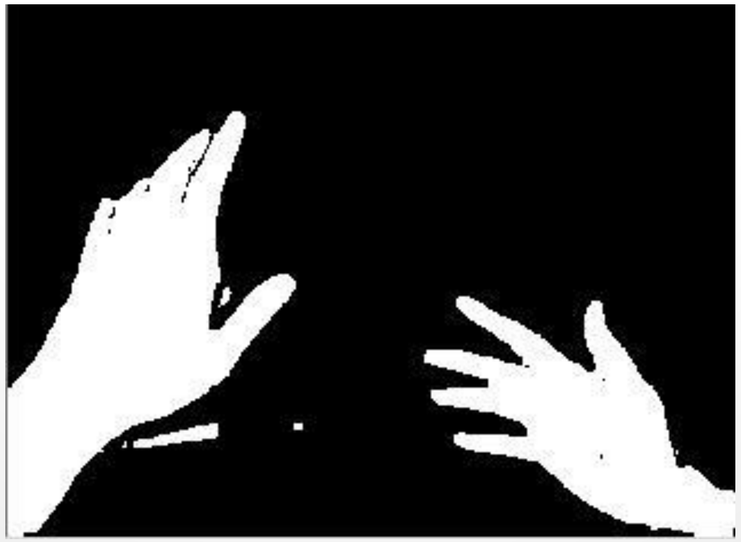
Palm orientation/size

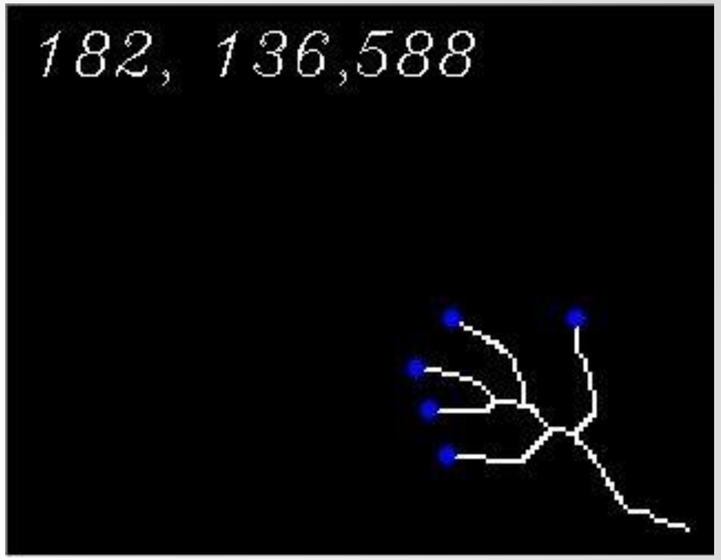




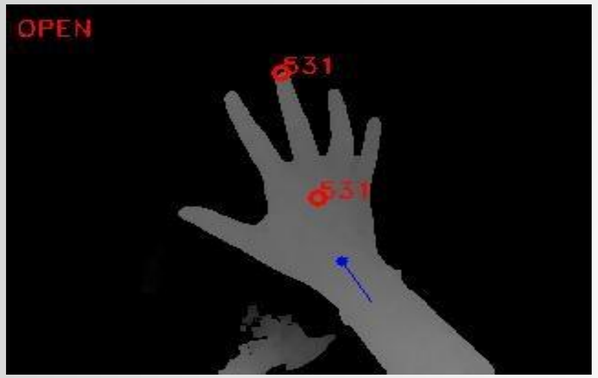
Fingertip tracking







Gestures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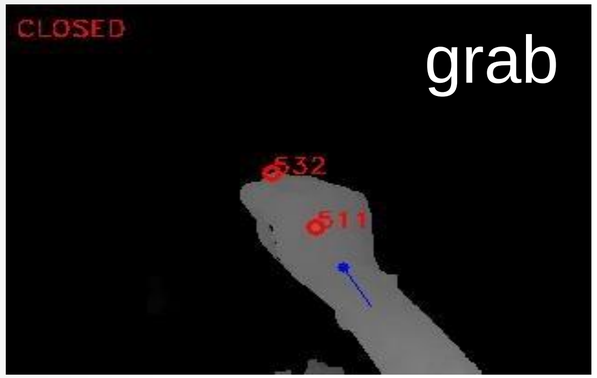
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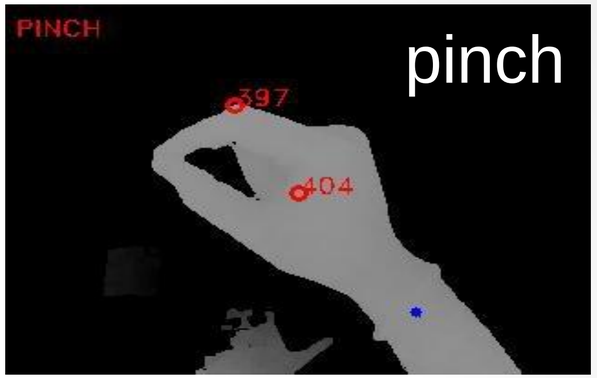
511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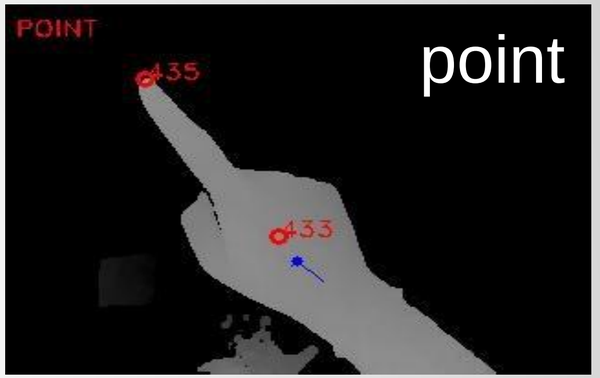
POINT
point
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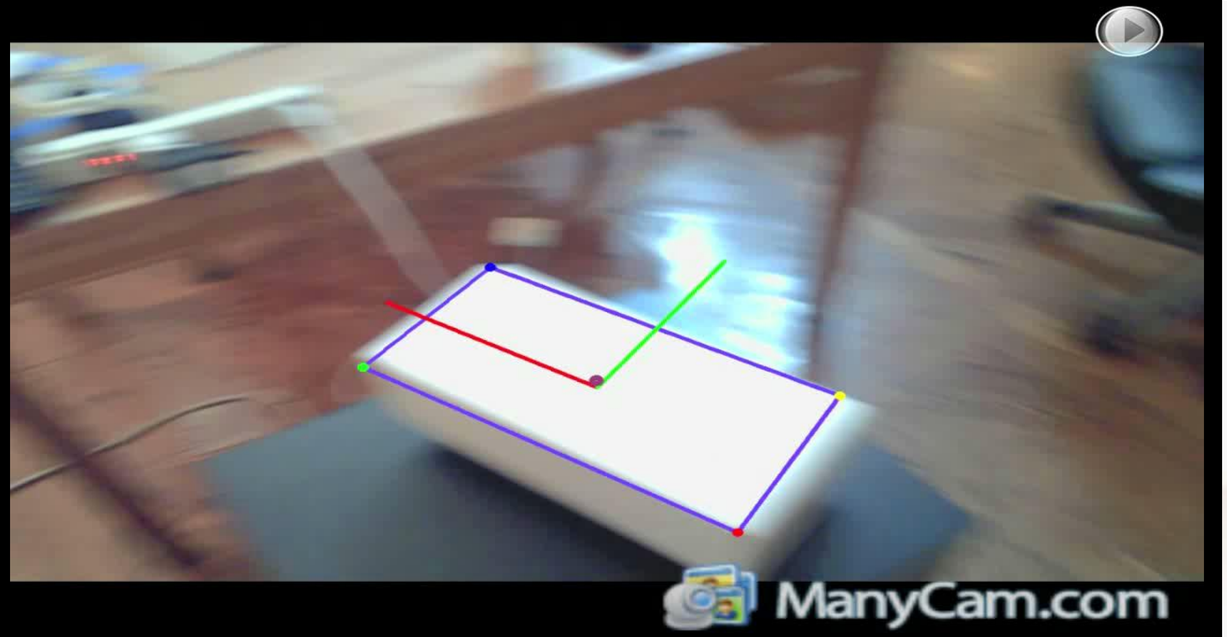
433

pull
Pull

push
Push

Surface tracking

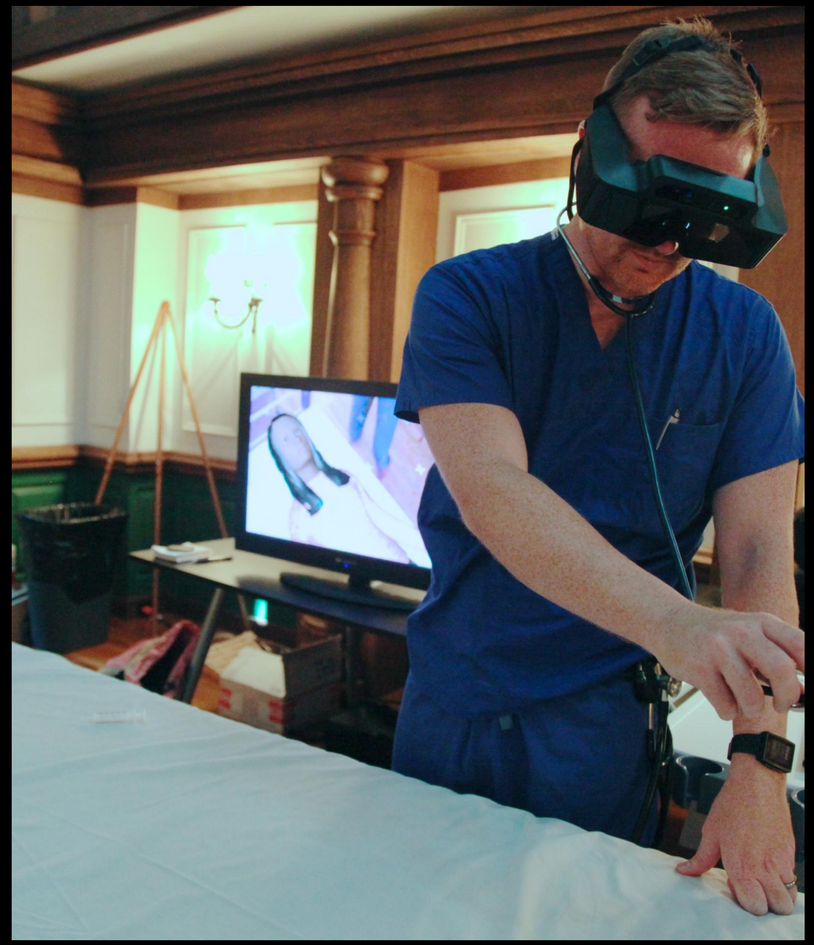


Surface tracking allows for registration between virtual objects and the real world

What are the applications and use cases?

Applications

- Simulation training
- Remote training
- Remote assistance
- Design
- Logistics



Pioneers program

Companies develop apps using the Meta SDK

SimX

Medical Simulation Software

Pioneers program

Companies develop apps using the Meta SDK

Ubimax

Order picking, assembly line, and QA

The possibilities are endless as we enable a 3D virtual world

Thank you!