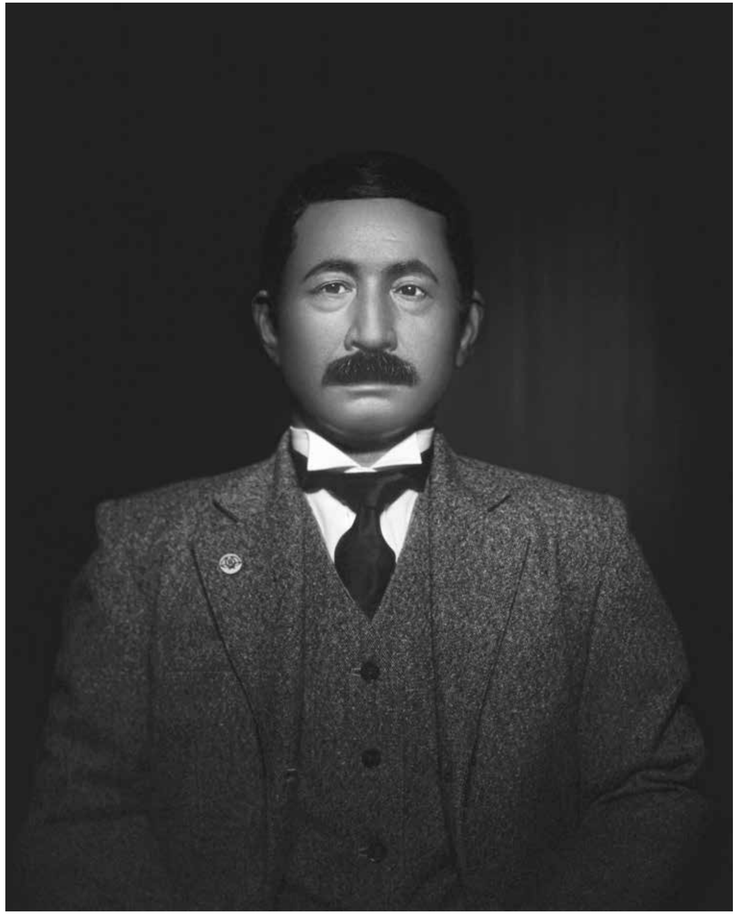
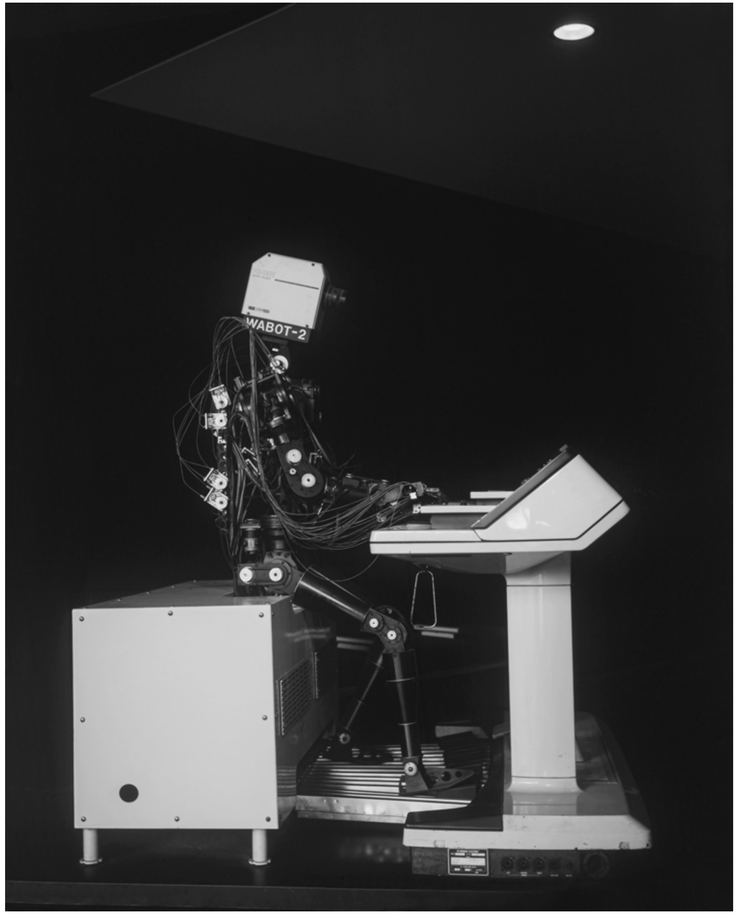
人造人間

this is robot

natsume soseki

Natsume Soseki as android in 2017
quixotic to meet I am cat
at Nishogakusha University in Tokyo Japan
to re-embody a nobel laureate of literature
lectures and reads at his alma mater





wabot-2

Wabot-2 as anthropomorphic robot in 2017
amazement by 1970 pre-cellphone pre-pc
at Waseda University in Tokyo Japan
to push the boundaries of personal robots
plays keyboards with human-like intelligence

kansei

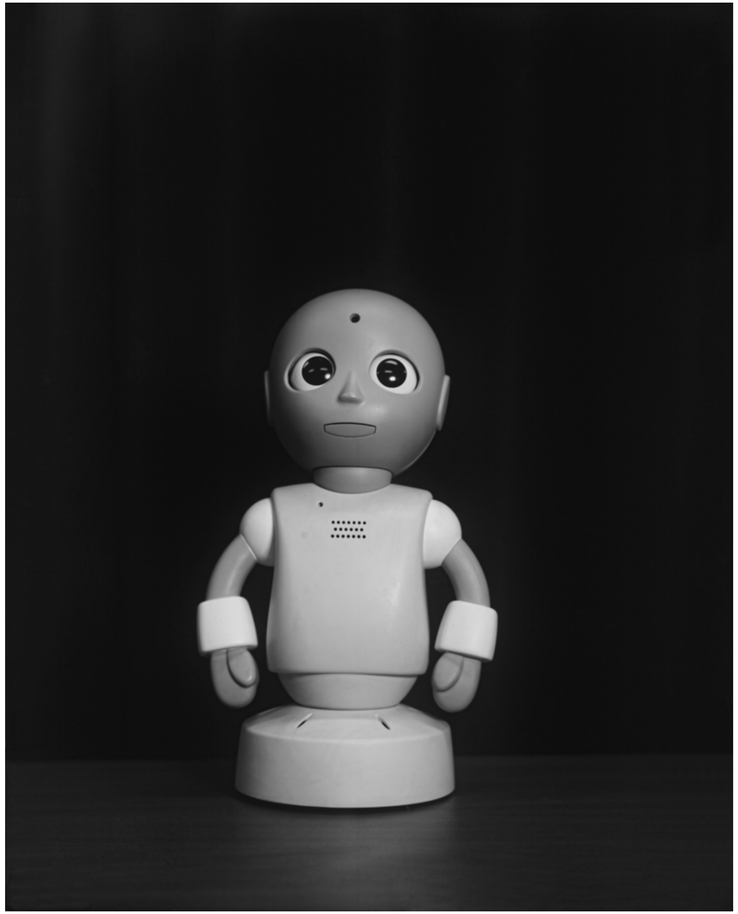
Kansei as humanoid in 2017
“sakura” associates with “bloom” “openly smile”
at Meiji University’s Robot and Science Institute in Kawasaki Japan
to feel a word’s emotions through associations
facially expressing a word’s emotive zeitgeist

affetto

Affetto as toddler android in 2017
“hug me” tumbling down the uncanny valley
at Asada Research Group in Osaka Japan
to understand us socially using robots
affection attention and temper tantrums

hi-4

professor Ishiguro and HI-4 as geminoid in 2017
drawn into who is what human
at ATR Hiroshi Ishiguro Laboratories in Kyoto Japan
to explore the boundaries of human presence
can be in person where the human body can not

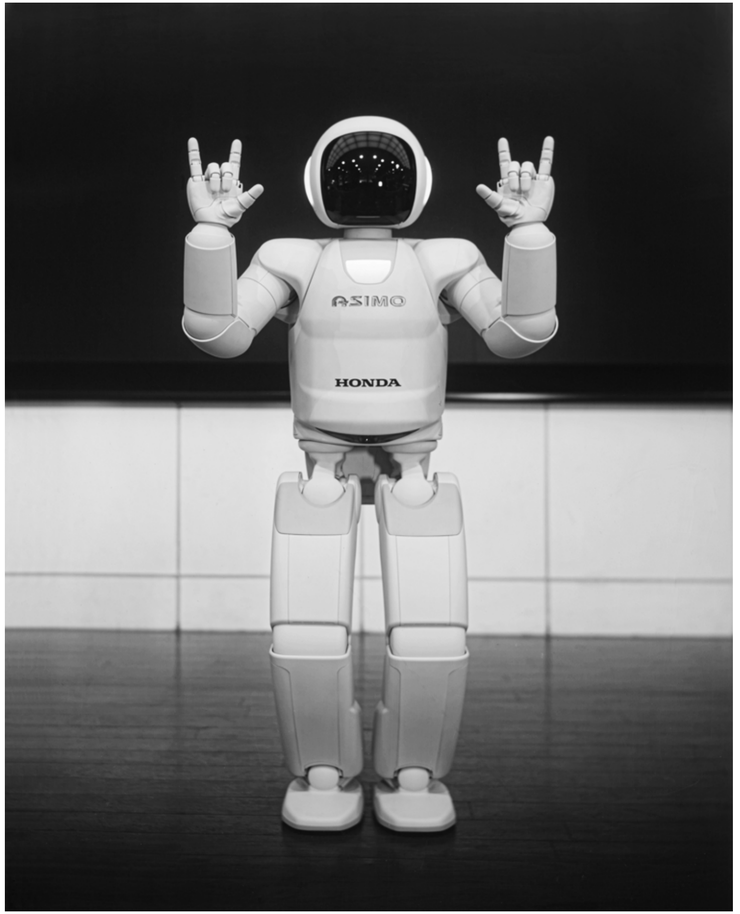


commu

CommU as social robot in 2016
just chat like child no doing dishes
at Ishiguro Lab of Osaka University in Japan
to attract attention and infuse information
as life cartoon characters for communication

azimo

Azimo as humanoid robot in 2017
less energy efficient than you and me
at Honda Aoyama Building Tokyo, Japan
to coexist usefully with humans
brings bento and serves sentients

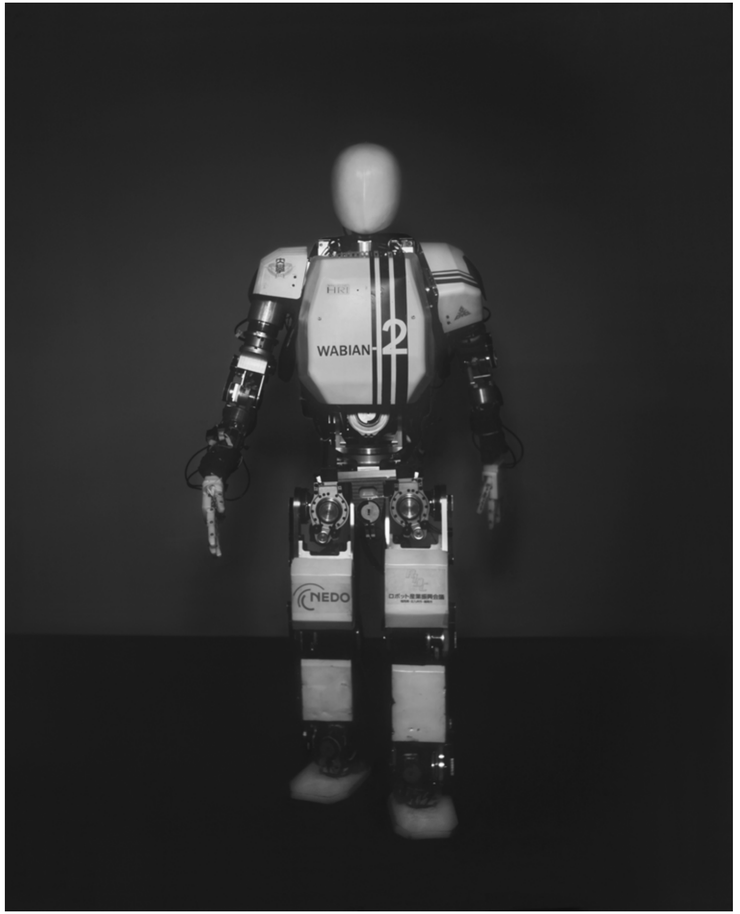


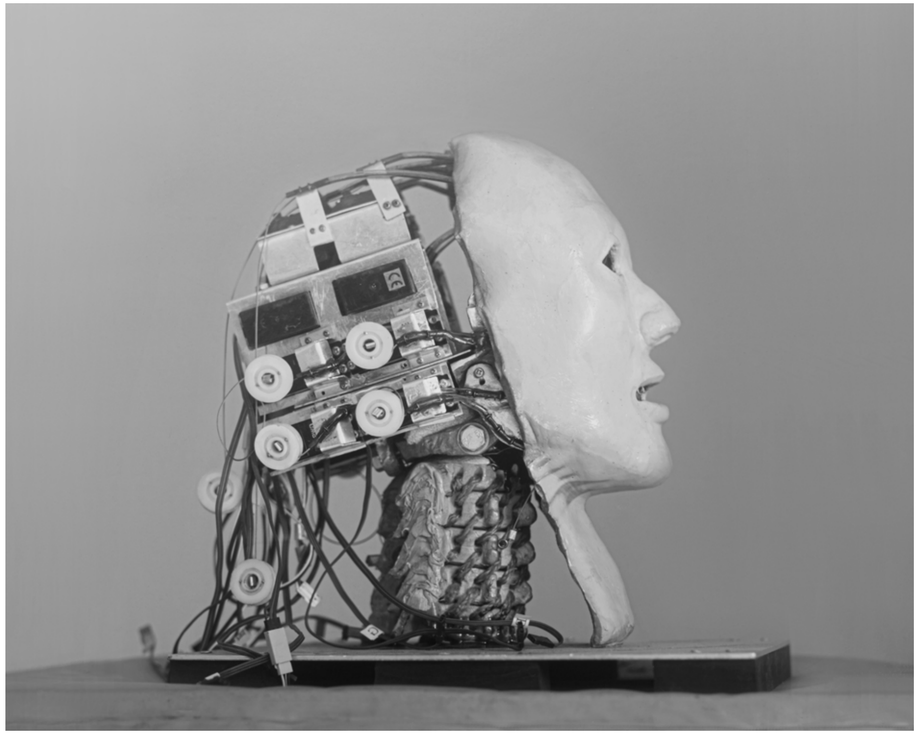
android u

professor Ishiguro's android U in 2016
silence of the distant mystifying gaze
at Osaka University in Japan
to express likeable personality traits
converses naturally with humans

wabian-2rIII

Wabian-2RIII as humanoid in 2017
WAseda BIpedal humANoid No. 2 Refined III
by Takanishi Laboratory of Waseda University in Tokyo Japan
to evaluate assistive systems for ageing people in ageing society
by acting as a guinea pig before human trials





kansei

Kansei as humanoid in 2017
seeing us eating from the top office bookshelf
at Meiji University's Robot and Science Institute in Kawasaki Japan
to emote the psychological valence of a word
reflecting the state of the word in a muscular façade

telenoid r1

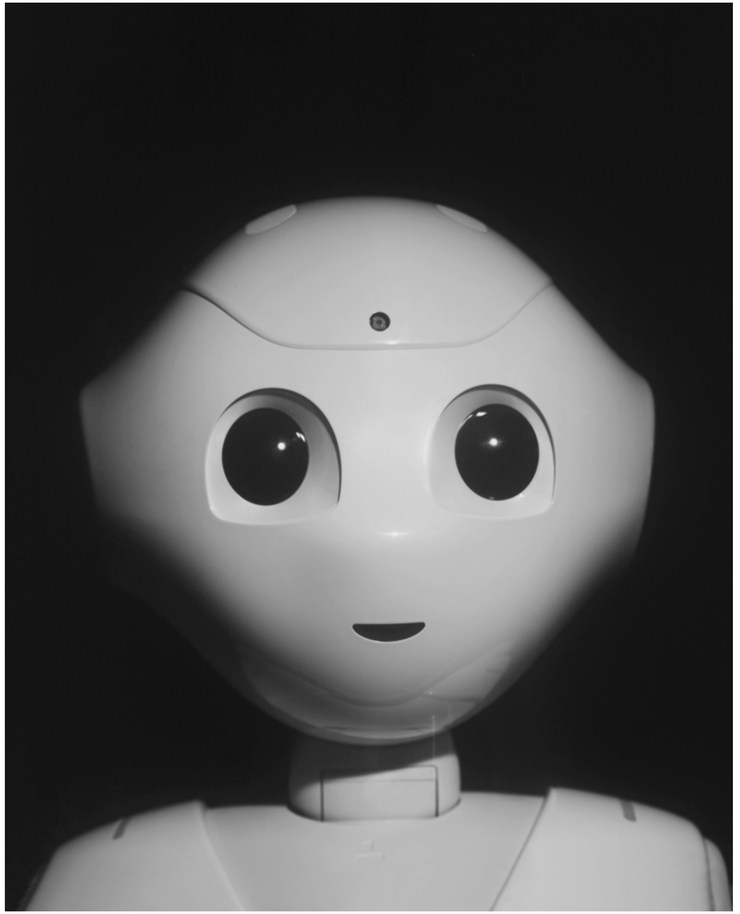
Ishiguro's Telenoid R1 as android in 2016
a mask of ageless gender inclusive attraction
by Osaka University and ATR in Kyoto Japan
to web transmit voice and face movements
brings loved ones closer in communication

f

Geminoid F as doppelganger in 2016
portraying young old-world patience
by Hiroshi Ishiguro Laboratories in Kyoto
to efficiently exhibit natural expressions
by producing a convincing “toothy smile”

pepper

Pepper as semi-humanoid in 2016
cartoon character responding reflectively
by SoftBank Robotics in Tokyo Japan
to enhance the social joy in people's lives
connect people with others and the world

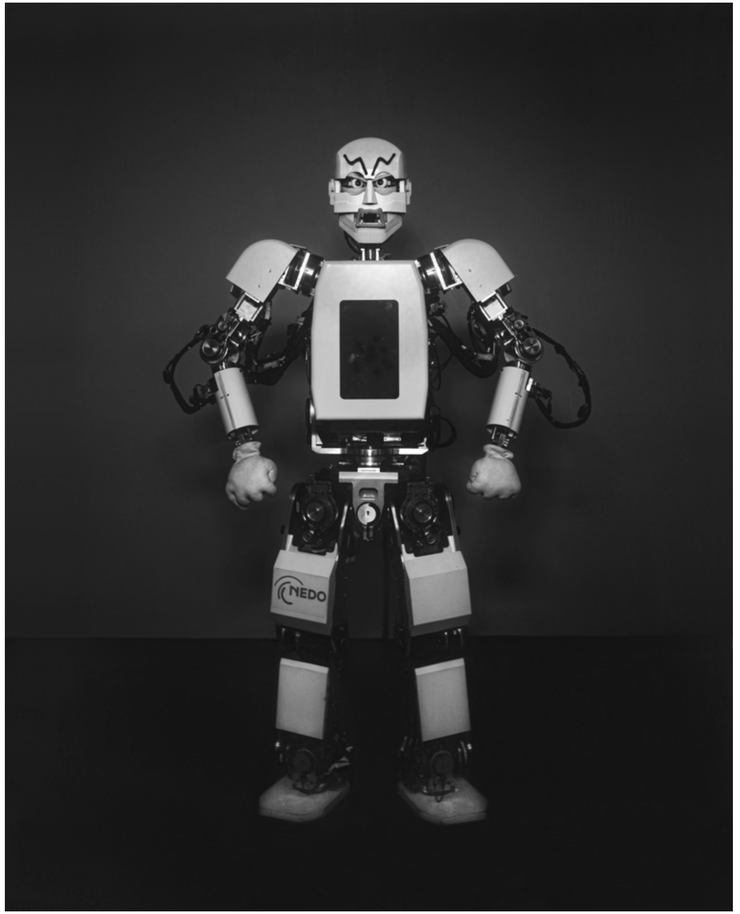


sur-ky-01

SUR-KY-01 as actroid in 2017
kawaii proper prim must approach
by Kokoro Dreams in Tokyo Japan
to inform about insurance at Narita Airport
by voicing text with embodied engagement

kobian-r-1

Kobian-R-1 as humanoid in 2017
boxed expressions in boxed body
by Takanishi Laboratory of Waseda University in Tokyo Japan
to support activities of daily living
by versatile mobility and expressivity

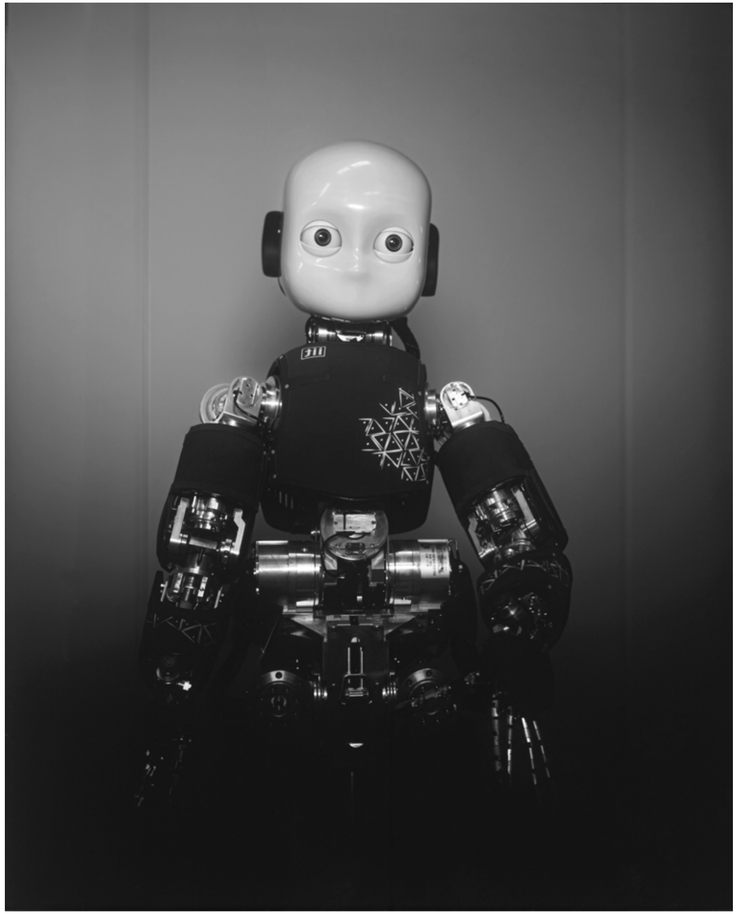


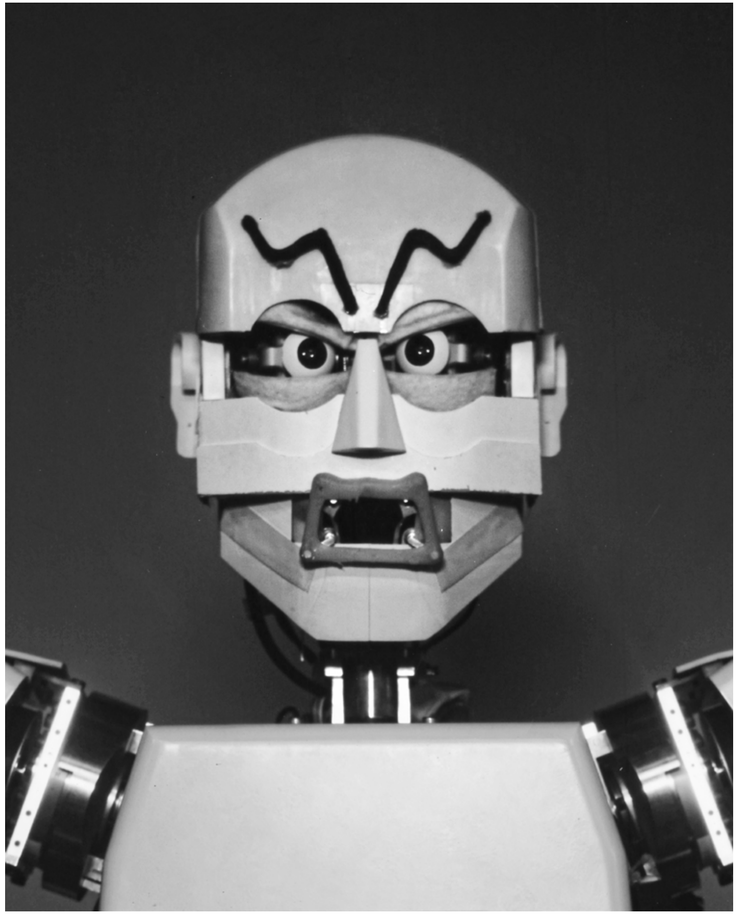
f2

Geminoid F2 as a human twin in 2016
uncanny human complexity captivated
by Hiroshi Ishiguro Laboratories in Kyoto Japan
to transfer human body ownership to robot
by tele-operation and tele-sensing

icub

iCub as child humanoid in 2017
asking us what is what for
at Asada Research Group in Osaka Japan
to develop capabilities like a child
by exploring and interacting with its world





kobian-r-2

Kobian-R-2 as humanoid in 2017
expressive make up for today's attitude
by Takanishi Laboratory of Waseda University in Tokyo Japan
to support humans in their chores
with carefully constructed compatibility

der2

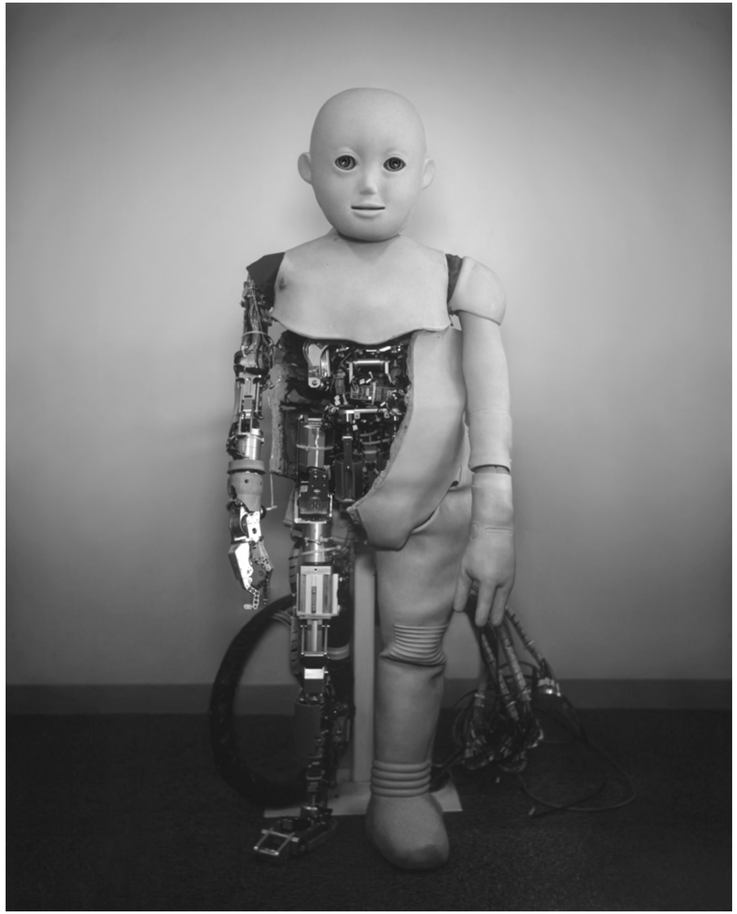
DER2 as actroid in 2017
“booth bunny” for tech toys game gadgets
by Kokoro Dreams in Tokyo Japan
to greet with “exotic facial expressions”
“cuter than her sister with attractive long legs”

hi-2

HI-2 as geminoid in 2016
radically transferred identity to geminoid
at ATR Hiroshi Ishiguro Laboratories in Kyoto Japan
to give an embodied lecture in Copenhagen
from the comfort of the office in Kyoto

kansei

Kansei as humanoid in 2017
ageing with the turbulence of emotive living
at Meiji University's Robot and Science Institute in Kawasaki Japan
to associate words it receives with human physiology
expressing the cultural heart charge of a word



cb2

CB2 as child-robot in 2017
mommy you seem sad; I see it
at Asada Research Group in Osaka Japan
to teach lessons about child development
as child robot with biomimetic body

otonaroid

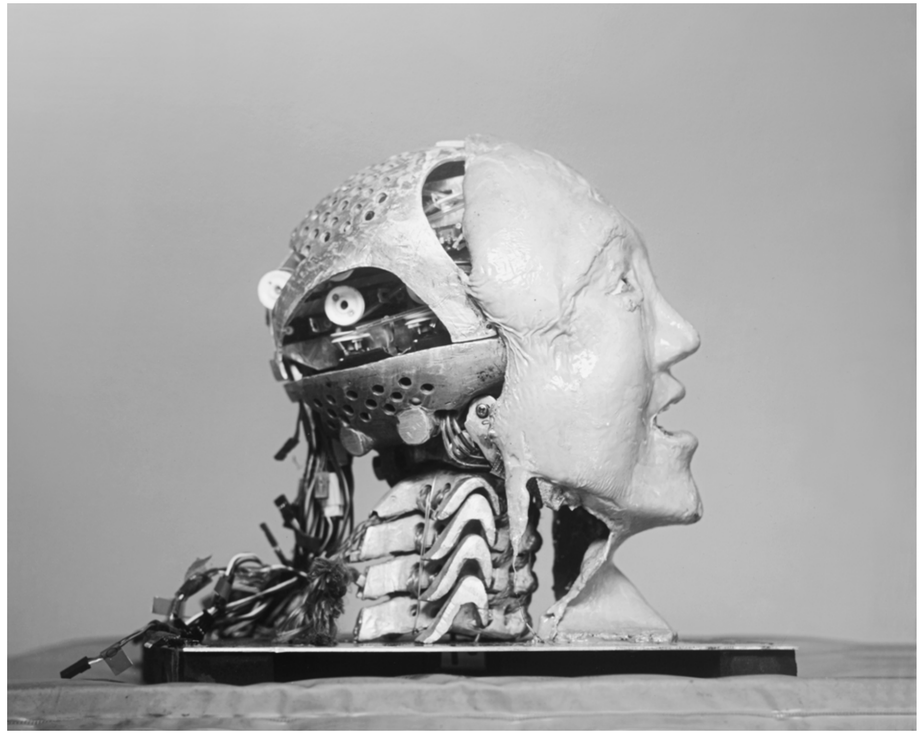
Otonaroid as tele-operated adult android in 2017
blink and breathe and talk and act
Ishiguro ATR robot at Miraikan Museum, Tokyo, Japan
to communicate about her as science being
and let visitors control her as human robot

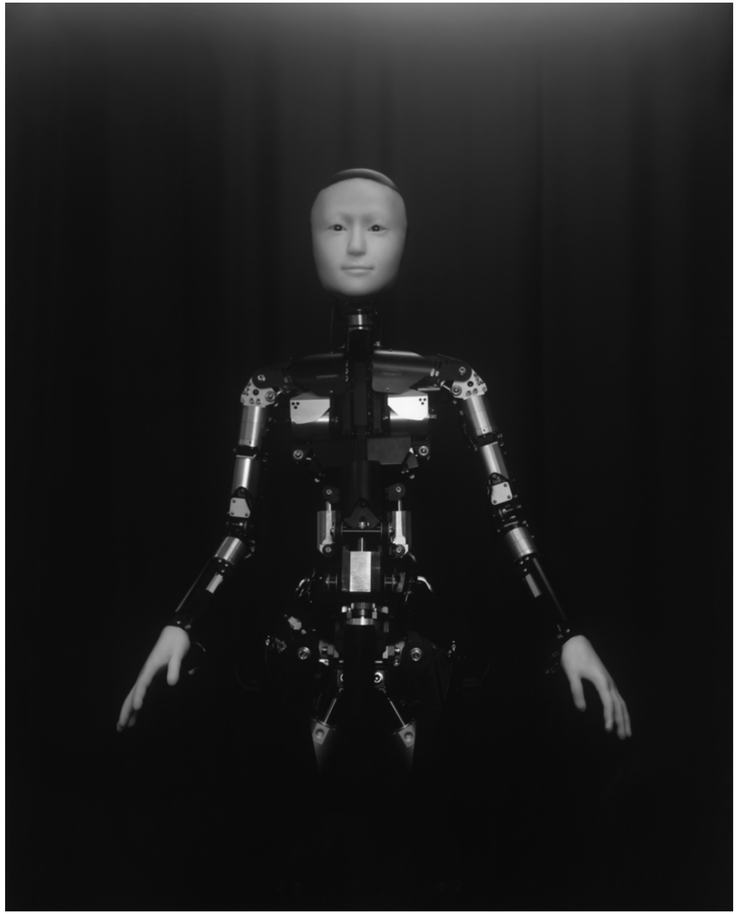
erica

Erica as intelligent conversational android in 2016
amalgamation of Japanese female beauty selected
at Hiroshi Ishiguro Laboratories under ATR umbrella
to understand human natural language
engage in attentive intelligent conversation

kansei

Kansei as humanoid in 2017
dripping like a candle the agony of transience
at Meiji University's Robot and Science Institute in Kawasaki Japan
to sense the world of a word through associations
expressing the word's world emotionally





repliee s1

Repliee S1 as android in 2016
acted on stage in Kafka's Metamorphosis
at Ishiguro Lab of Osaka University in Japan
to edge into the creative arts world
without the human edge of fear and forgetting

The eye of the past on the brain of the future
A Victorian-era camera obscura captures today's evolutionary stage of human form robots

by photographer Wanda Tuerlinckx and scientist Erwin R. Boer
photographed during the fall of 2016 and the spring of 2017 in Japan

photographs copyright Wanda Tuerlinckx
text Erwin R. Boer
book design by Smörgåsbord with Crisja Ran
styling and makeup of HI-4 geminoid by Brian Enrico
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