

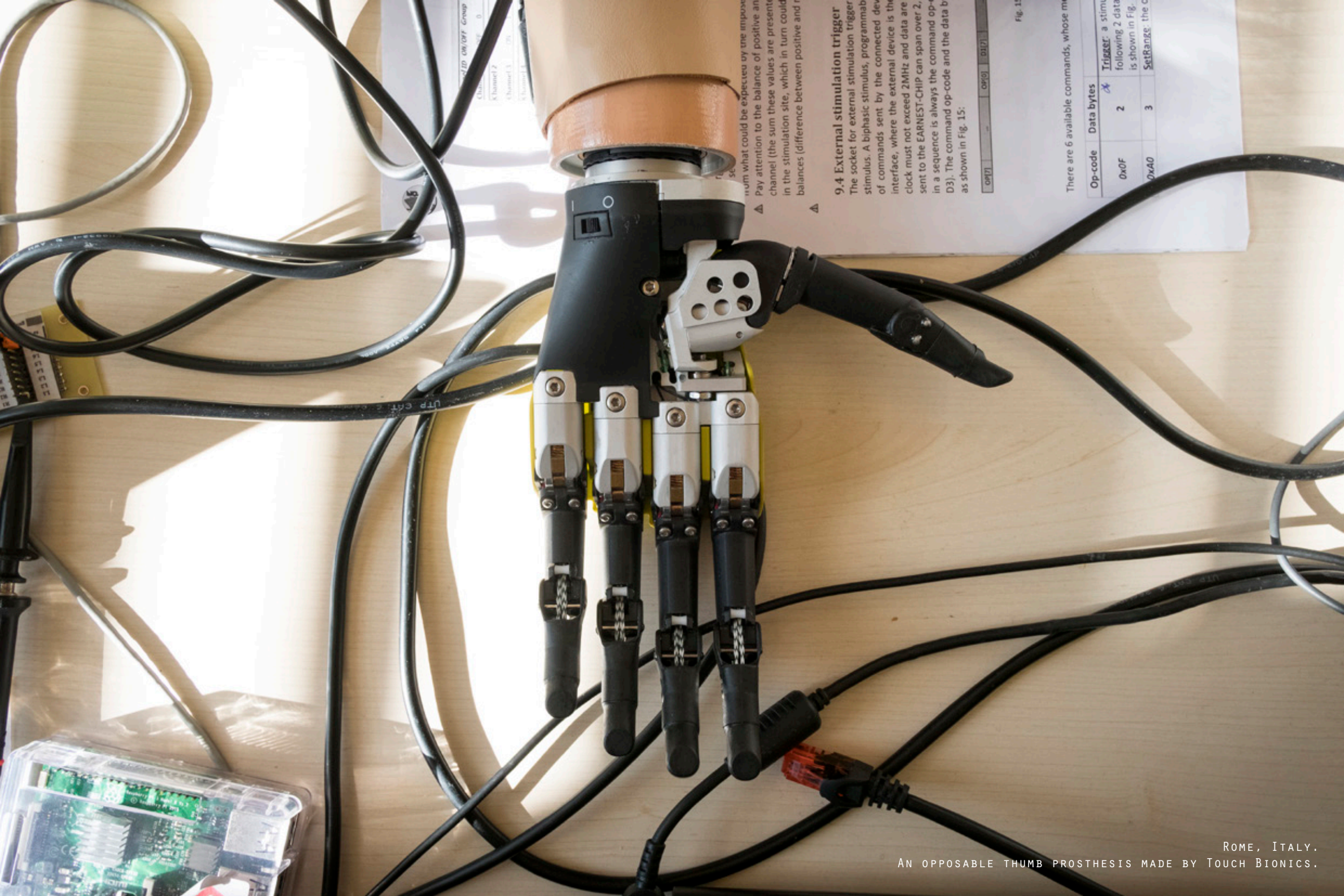


EUROPE

# THE AGE OF ULTRABODIES

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parallelozero





Channel 1  
Channel 2  
Channel 3  
Channel 4

sum what could be expected by the imposed stimulus. A biphasic stimulus, programmable of commands sent by the connected device interface, where the external device is the clock must not exceed 2MHz and data are sent to the EARNEST-CHIP can span over 2, in a sequence is always the command op-code (D3). The command op-code and the data bytes as shown in Fig. 15:

#### 9.4 External stimulation trigger

The socket for external stimulation trigger stimulus. A biphasic stimulus, programmable of commands sent by the connected device interface, where the external device is the clock must not exceed 2MHz and data are sent to the EARNEST-CHIP can span over 2, in a sequence is always the command op-code (D3). The command op-code and the data bytes as shown in Fig. 15:

| Op-code | Data bytes |
|---------|------------|
| 0x0F    | 2          |
| 0xA0    | 3          |

Fig. 15

There are 6 available commands, whose m

| Op-code | Data bytes | Trigger: a stimulus following 2 data bytes is shown in Fig. 15 |
|---------|------------|----------------------------------------------------------------|
| 0x0F    | 2          |                                                                |
| 0xA0    | 3          |                                                                |

CYBERNETIC MEN ARE AMONG US. THEY HAVE BEEN IMAGINED IN ENDLESS SCI-FI TALES AND MOVIES, BUT THEY HAVE HABITS AND FACES SIMILAR TO ANYONE IN THE NEIGHBOURHOOD. ANY CATEGORISATION WAS CANCELLED AND MADE IMPOSSIBLE THANKS TO THE AMAZING RESULTS OBTAINED IN EUROPE BY ORGANIZATIONS AND UNIVERSITIES THAT FOCUSED THEIR RESEARCHES ON PROSTHESES AND CYBERNETICS.

MUSCLES AND ELECTRODES ARE ONE IN THE GERMAN LABS OF OTTOBOCKS COMPANY, WHILE FOR THE TECHNICIANS OF THE ITALIAN ITOP EVEN STAIRS ARE NO MORE AN OBSTACLE, AS THEY CAN COUNT ON THE POWERFUL BIONIC KNEES THEY PRODUCE AND SELL. THE WHEELCHAIR OF THE SCEWO PROJECT (A PROJECT OF THE SWISS FEDERAL INSTITUTE OF TECHNOLOGY) CAN WIN ANY STAIR WITH ITS AMAZING CATERPILLARS. IN BERLIN, REWALK'S EXOSKELETONS GIVE BACK STRENGTH AND MOBILITY TO BODIES WITH INJURED SPINAL CORDS. WANT MORE? WIRELESS CONNECTIONS BETWEEN BRAIN AND SPINAL COLUMN, LEGS FOR KIDS WITH DEFORMITIES MADE WITH 3D PRINTERS... NO MATTER THE SOLUTION FOUND: IT'S MORE AND MORE CLEAR THAT LOOSING A LIMB DOESN'T MEAN DISABILITY ANYMORE, BUT AN ENHANCEMENT OF THE ABILITIES OF A PERSON. THE WONDER OF GRABBING AN OBJECT AGAIN, THE PRIDE OF RUNNING ON THE ROAD EQUIPPED WITH HIGHLY SOPHISTICATED LEVERS WILL REPLACE THE BEWILDERMENT OF NOT RECOGNISING YOURSELF AND THE DESPERATION OF BEING NO MORE ABLE TO DO WHAT YOU USED TO. WHILE SIMILAR TO THE ORIGINAL, AN ARTIFICIAL HAND OR A PROSTHESIS FOR A LEG WILL BE A NEW HAND, FOOT OR LEG ONCE THEY GIVE BACK THE SAME FEELING OF GRABBING, TOUCHING, FULLY BEING IN THE ENVIRONMENT YOUR BODY IS.

MAN 2.0 WILL BE REAL, THEN. AND THOSE LABS WITH PROTOTYPES ON THEIR WALLS AND ARTIFICIAL LIMBS OF ALL KIND ON THEIR SHELVES WILL BE NO MORE THE DOORS TO AN UNAVOIDABLE SOCIAL ALIENATION, BUT GATES TO ENTER A WORLD WHERE DREAM AND REALITY CAN MEET. RIGHT NEAR HOME.



PALESTRINA, ROME, ITALY.  
SIMONE, 23 YO, LOST HIS LEFT LEG IN A MOTORBIKE ACCIDENT, BUT THANKS TO  
THE RUNNING PROSTHESES MADE BY "ITOP SPA OFFICINE ORTOPEDICHE" HE CAN WALK AND RUN AGAIN.

PALESTRINA, ROME, ITALY.  
ANTONIO, 60 YO, PREPARING TO WEAR AN ITOP PROSTHESIS  
AFTER PLACING A BONNET TO EASE THE INSERTION.





ZURICH, SWITZERLAND.  
PASCAL, ONE OF THE MANAGER OF THE SCEWO PROJECT AT THE  
SWISS FEDERAL INSTITUTE OF TECHNOLOGY OF ZURICH, TESTING A  
WHEELCHAIR WITH CATERPILLARS ABLE TO FACE INCLINED SURFACES.



VIENNA, AUSTRIA.  
OLD MODELS OF LEG PROSTHESES  
IN A ROOM OF THE OTTOBOCK COMPANY.

BERLIN, GERMANY.  
REWALKER ANDRE PREPARING TO WEAR  
THE EXOSKELETON REWALK 6.0.







PALESTRINA, ROME, ITALY.  
DANIELE, AN ORTHOPEDIC TECHNICIAN, TUNING A PROSTHESIS  
IN THE LABS OF "ITOP SPA OFFICINE ORTOPEDICHE".



BERLIN, GERMANY.  
REWALKER ANDRE TRYING THE EXOSKELETON  
REWALK 6.0; THAT'S GOING TO REPLACE HIS WHEELCHAIR.

ROME, ITALY.  
ALMERINA, A PATIENT OF THE NEBIAS PROJECT, WEARING  
A PROSTHESIS MADE BY TOUCH BIONICS. SHE'S TRAINING  
FOR THE EXPERIMENTAL COMPETITIONS OF CYBATHLON.





PALESTRINA, ROME, ITALY.  
SIMONE, 23 YO, WHO LOST HIS LEFT LEG IN A MOTORBIKE ACCIDENT, GETTING  
DRESSED AFTER A MORNING SPENT AT THE "ITOP SPA OFFICINE ORTOPEDICHE".



VIENNA, AUSTRIA.  
A CHOICE OF THE SKIN TONES AVAILABLE AT THE OTTOBOCK LABS,  
A GERMAN COMPANY PROVIDING PROSTHESES AND ORTHOPEDIC ACCESSORIES.



BERLIN, GERMANY.  
REWALKER ANDRE WALKING WITH THE EXOSKELETON REWALK 6.0.

VIENNA, AUSTRIA.  
PATRICK, ONE OF THE TRAINERS AT OTTOBOCK IN VIENNA,  
PRACTISING WITH A ROBOTIC HAND CONNECTED VIA ELECTRODES  
TO THE ELECTRICAL IMPULSES OF HIS BRAIN.





PALESTRINA, ROME, ITALY.  
SIZE TEST FOR A KID PROSTHESIS AT "ITOP SPA OFFICINE ORTOPEDICHE".





ROME, ITALY.  
ALMERINA, A PATIENT OF THE ROBOTIC PROSTHESIS  
PROJECT NEBIAS, HAVING A BREAK DURING A TEST DAY.

PALESTRINA, ROME, ITALY.  
CLAUDIO'S EVERYDAY PROSTHESIS HAS A BIONIC KNEE  
FLEXING LIKE A "NORMAL" ONE, ALLOWING HIM  
TO EASILY APPROACH STAIRS UP AND DOWN.



PALESTRINA, ROME, ITALY.  
A PROSTHESIS WITH SPRINGING MOTION IN  
THE LABS OF "ITOP SPA OFFICINE ORTOPEDICHE".





ZURICH, SWITZERLAND.  
PASCAL, ONE OF THE MANAGER OF THE  
SCEWO PROJECT AT THE SWISS FEDERAL  
INSTITUTE OF TECHNOLOGY OF ZURICH,  
TESTING A WHEELCHAIR WITH CATERPILLARS.



parallel o z e r o

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