

# CYBATHLON 2024

## Arm Prosthesis Race



Points	Scoring	Competition rule	Inclusion criteria
Pilots can achieve 10 points per tasks with a maximum of 100 points per run.	Pilots with the highest score and best time are rank best.	Blue parts of objects are only to be touched with the prosthetic hand.	Pilots with an above-wrist amputation or a malformation of at least one hand.



# ARM

## Tasks

### 1. CARRY BOTTLES

**Task:** Place weighted bottles into the crate and carry them to the table.

**Test:** Ability to pick up and carry heavy objects.



### 2. SERVING FOOD

**Task:** Carry a casserole dish and a frying pan from the stove to a location on a table.

**Test:** Ability to grasp and carry objects of significant weight from one location to another.



### 3. STORING DISHES

**Task:** Grasp and stow away kitchen objects at the predefined target locations.

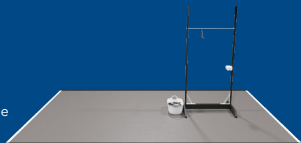
**Test:** Ability to manipulate objects in confined space and at varying heights.



### 4. HANGING LAUNDRY

**Task:** Hang up the hooded sweater on the clothesline using a hanger.

**Test:** Compatibility of function, size and shape of the prosthesis for daily life.



### 5. DO-IT-YOURSELF

**Task:** Use a variety of hand tools in the context of do-it-yourself type work.

**Test:** Dexterous use of hand tools by prosthetic hand and wrist.





## 6. CONTAINERS

**Task:** Conduct a series of kitchen-related bimanual tasks.

**Test:** Ability to use kitchen tools and objects with precise two-handed actions.



## 7. HAPTIC BAG

**Task:** Identify and fetch objects of various shapes and flexibility without visual assistance.

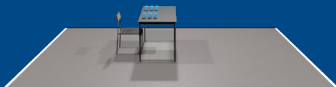
**Test:** Ability to feel different shapes and compliance of objects with prostheses.



## 8. HOT WIRE

**Task:** Guide a loop with the prosthetic hand along a curved metal wire without touching it.

**Test:** Ability to maintain a tight grip during sustained postural changes of the prosthetic hand.



## 9. STACKING

**Task:** Stack cups into a vertical pyramid.

**Test:** Ability to maintain a stable grip during postural changes of the arm.



## 10. CLEAN SWEEP

**Task:** Moving objects from the box on one table to the target position on the other table.

**Test:** Ability to pick up small objects of varying shapes, sizes, and textures.

# CYBATHLON ARM



For a world without barriers!

# maxon



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STADTKLOTEN