

# Autodarts **Vision**

Assembly and operating instructions



*Please read the operating instructions carefully before use and keep them in a safe place. Please note that this printed version may not be up-to-date. The latest digital operating instructions are available for download at <https://autodarts.io>.*

## **WARNING**

PLEASE READ CAREFULLY BEFORE INSTALLATION AND KEEP IN A SAFE PLACE



Danger to children – Risk to life from suffocation/swallowing! Keep the packaging material away from children! Keep small parts out of the reach of children. These could be swallowed or inhaled. Using this item other than as intended will void any warranty claims!

## **Assembly and operating instructions**

### **1. Introduction:**

- Read these instructions carefully before using the Autodarts Vision.
- Keep the instructions somewhere safe for future reference. Subject to technical changes.

### **2. Safety guidelines:**

- Make sure the Autodarts Vision is installed and operated in accordance with these instructions.
- Check all connections regularly to ensure that they are secure and tight.
- When replacing faulty parts, only use original parts or parts approved by the manufacturer. Original parts or accessories not supplied by the manufacturer cannot be tested or approved. The manufacturer accepts no liability for damage caused by failure to use original parts and accessories.
- Trip hazard due to cables running along the floor!

- Protect the mains cable and plug connections from mechanical stress such as crushing or pulling.

### **3. Product description:**

- Understand how the Autodart Vision works before you use it.
- Please note that the system is designed exclusively for use in conjunction with a dartboard.
- Please note that the Autodarts Vision is only suitable for wall mounting.
- Only use Autodarts Vision with the software provided by Autodarts.

### **4. Set up and installation:**

- Position the cameras according to the installation instructions to ensure accurate detection.
- Make sure the Autodarts Vision is protected from external factors such as moisture, extreme temperatures, direct sunlight and weather conditions.
- Position the device somewhere suitable to make sure other people are not at risk.

### **5. Operation**

- Start the Autodarts Vision according to the instructions.
- Check the functionality regularly and recalibrate the system if necessary.
- Only operate Autodarts Vision with the software provided by Autodarts.

### **6. Maintenance:**

- Carry out regular maintenance work in accordance with the instructions.
- Switch off the system completely before carrying out maintenance work and disconnect the USB connection to your computer to ensure that there is no voltage.

### **7. Safety precautions:**

- To avoid injury from the darts, nobody should be in the vicinity of the flight path while a game is in play.
- It is particularly important not to insert anything into the device through the ventilation slots, as parts under voltage can be touched.
- Unauthorised modifications or changes to the device are not permitted for safety reasons and will invalidate any warranty claims!
- Slots and other openings in the housing are used for ventilation. These openings must not be blocked or covered, to ensure the device can work properly and does not overheat.

## **8. Electrical safety:**

- Only connect the Autodarts Vision to a properly functioning and suitable computer.
- Only use power supplies and cables recommended by the manufacturer.
- The device is only de-energised once the USB plug has been removed! Never put in or take out the plug if hands are damp or wet!
- Do not spill any liquid over the appliance! Risk of electric shock or fire!
- Danger of electric shock or fire If liquids have been spilt over the appliance, switch off the power supply and have it checked by a specialist!

# Contents

<b>1 Meaning of symbols and safety instructions</b>	<b>p. 6</b>
<b>2 Description of product</b>	<b>p. 8</b>
<b>3 Technical information</b>	<b>p.9</b>
<b>4 Assembly instructions</b>	<b>p. 10</b>
<b>4.1 Autodarts Vision</b>	<b>p. 10</b>
<b>4.2 Autodarts Vision adaptor kit</b>	<b>p. 14</b>
<b>4.3 Autodarts Vision extender kit</b>	<b>p. 15</b>
<b>4.4 Wall mounting</b>	<b>p. 16</b>
<b>5 How to use</b>	<b>p. 18</b>
<b>5.1 Fault finding</b>	<b>p. 18</b>
<b>5.2 Cleaning and maintenance</b>	<b>p.19</b>
<b>6 Disposal</b>	<b>p. 19</b>
<b>7 Legal</b>	<b>p. 20</b>

# 1. Meaning of symbols and safety instructions



## **DANGER**

Risk of electric shock with serious injury or death possible as a result.



## **WARNING**

Potential risk of personal injury or damage to property.



## **CAUTION**

Note about potential faults.



## **INFO**

Gives additional information and explanations.

Please note the following to ensure optimal service life and functionality of your Autodarts vision system:

- Do not try to force open the device. It does not contain any parts that could be repaired by a layperson. Contact a specially trained specialist if a repair is necessary.
- The appliance must not be installed near radiators.
- Under no circumstances should the device be exposed to rain or high humidity.
- If you pass the system on to someone new, make sure that they are familiar with the assembly and operating instructions.
- Before each use, you should check the function of all parts and not use the appliance if faults occur.
- Always disconnect the device from the power supply immediately after use or when cleaning in accordance with these instructions for use.
- Disconnect from power supply if device is left unattended.



Autodarts accepts no liability for damages arising from failure to observe these instructions. We reserve the right to make technical upgrades or change the colour or design. Please keep the original packaging in case needed for returning at a later time.



**DANGER:**

Always check power is disconnected before cleaning the device.



**WARNING:**

Safety devices are there for your protection. Never modify or bypass safety devices. Only use original spare parts and accessories, as these ensure the device will function smoothly and safely. For information about spare parts and accessories, contact your specialist dealer or Autodarts.



**CAUTION:**

When unpacking, check the scope of delivery (contents) of the appliance for completeness. If any parts are missing or there is any damage in transport, please notify your specialist dealer.

## 2. Product description

The Autodarts Vision is a system for playing darts which is used to detect darts automatically when thrown. Darts are recorded hitting the dartboard automatically and the score can be calculated depending on the game being played. Calculating and displaying results is only possible by using the software provided along with an associated user account at <https://play.autodarts.io>. This why the cameras are connected to a computer via a USB port.

*The Autodarts software can be operated under Windows, MacOs or Linux. The minimum processor spec is 4 x 2 GHz or higher. The software can also run on a headless device. A device with at least 4x1.5Ghz is recommended for this.*



### **INFO:**

It is not possible to use Autodarts Vision without a computer with a stable internet connection.



### **WARNING:**

The device is only designed for use with USB ports (USB 2.0 or higher) on computers. Connection to other voltage sources can lead to damage to property. The manufacturer accepts no liability in such event.



### 3. Technical information

The cameras will not be powered unless connected to a computer. To operate the system, ensure that all USB connections are correct.



**INFO:**

Autodarts Vision does not use lethal voltages, as all units carrying power require 5V (USB voltage).

Parameter	Value
Dimensions (length x width x depth)	810 x 810 x 340(385) mm
Weight	1kg
Operating temperature	10 – 35 °C Air temperature
Relative humidity	20% - 80% (non-condensing)
Device voltage	5 V



**DANGER:**

Electric shock due to cable damage - if the power cable is cut or damaged, the fuse does not always trip immediately and can lead to serious physical injury or even death.

- Do not touch the cable until the plug has been disconnected from the power supply.
- Replace damaged cables entirely. Patching up faulty cables with electrical tape is not permitted.
- Repairs should only be carried out by a qualified person. Always lay cables properly without creating trip hazards and always choose extension cables that are long enough.
- Cables must always be protected against splashing water.

## 4. Assembly instructions

Please read these instructions carefully before starting assembly.



### INFO:

Size 2.5mm and 3mm Allen keys are needed for assembly.

### 4.1 Autodarts Vision



#### Autodarts Vision parts list

- 3x universal dowel 6x36 mm
- 3x flathead screws 4 x 45mm
- 6x steel pins 3 x 36mm
- 4x M3 x 8 mm
- 6x M4 x 16 mm
- 4x M3 square nut
- 6x M4 hex nuts
- 2x base with cable duct
- 1x leg with cable duct and cover
- 3x camera head
- 3x camera
- 3x USB cable
- 3x camera cover
- 1x cable duct cover
- 1x M4 hex socket
- 1x M3 hex socket
- 1x USB 3-in-1 connector

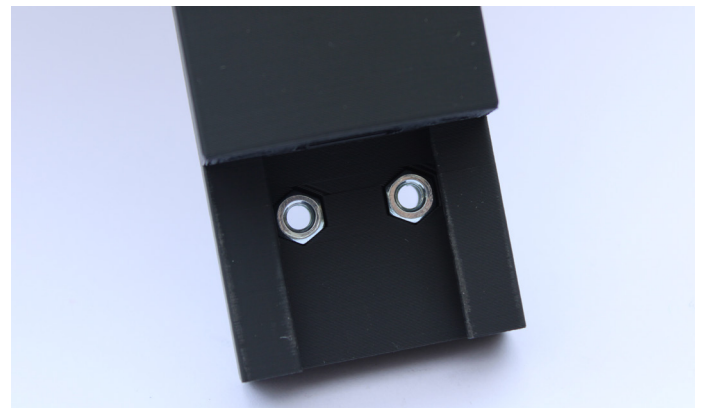
**Step 1:**

Hold the Autodarts Vision arm in the palm of your hand, the foot with one hand and the camera head with the other.

Use slight force to pull the components apart by carefully wiggling side to side.

**Step 2:**

Insert the M4 hex nuts into the two recesses on the rear of the camera head.

**INFO:**

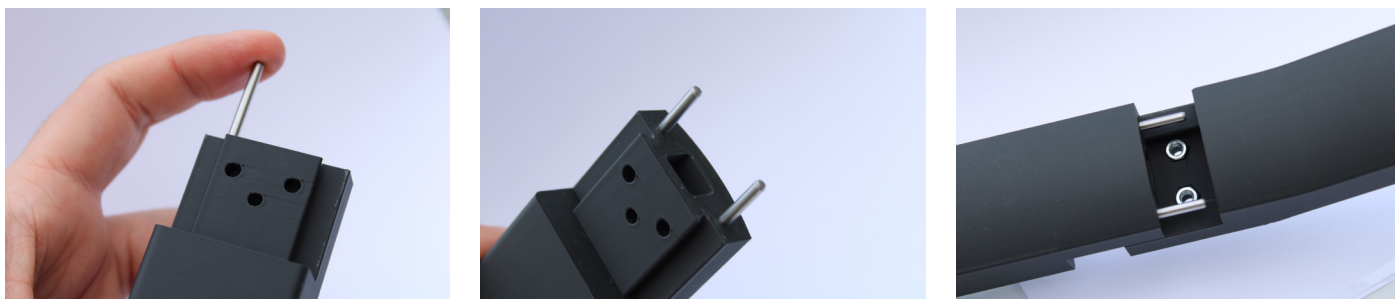
Screw the nut 2-3 turns onto the enclosed M4x16 mm screw and insert the nut. Then unscrew the M4 screw again.

**Step 3:**

Insert the two 3x36 mm steel pins into the two existing holes in the base or camera head.

Once the two M4 nuts and steel pins are in place, carefully slide the foot back onto the camera head.

Repeat steps 1-3 for the other two arms from the Autodarts Vision Set.

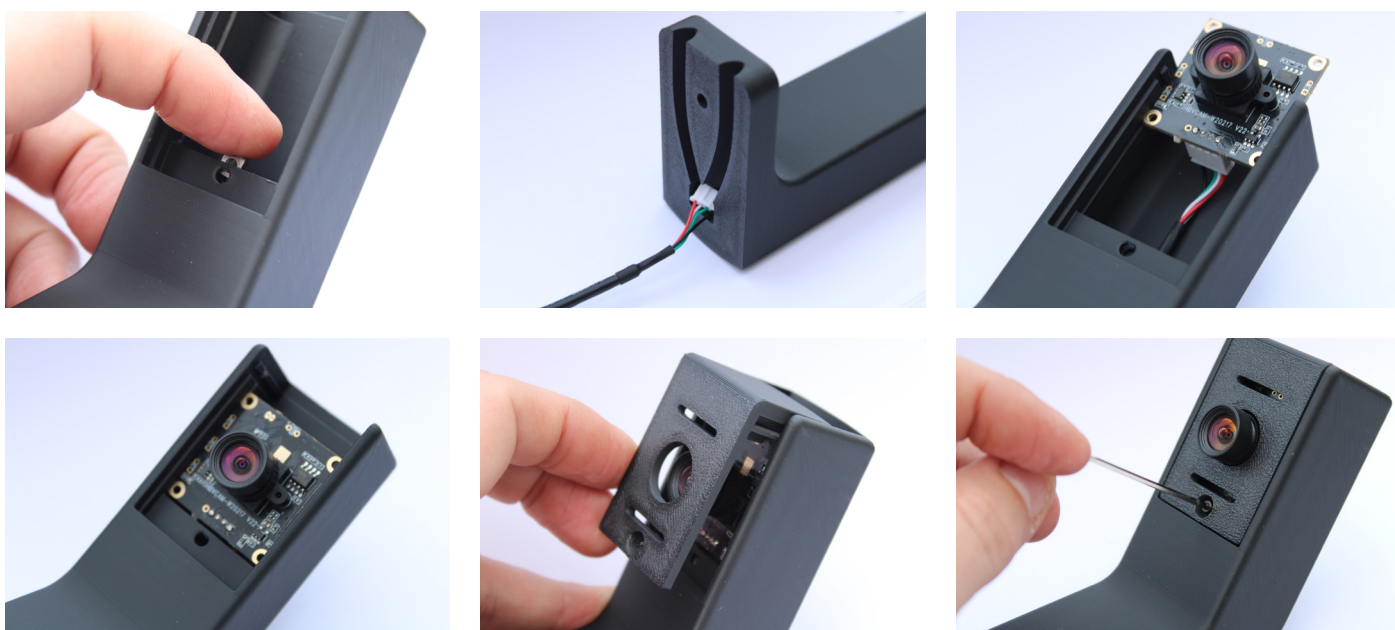


**INFO:**

Please only place the arms at the side after completion.

**Step 4:**

Insert the M3 square nut into the slot at the lower end of the camera mount. Then push the camera cable through the cable duct from below until the white plug protrudes over the camera head. Connect the plug to the camera and push the camera with the lower connection into the guide provided all the way down.



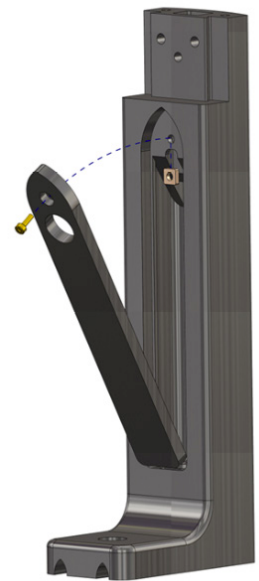
**INFO:**

Lay the cable behind the camera with a small loop. Once mounted to the wall, the camera can be removed if necessary without dismantling the arm.

Remove the lens cover, slide on the camera cover and secure it with a M3x8 screw.

**Step 5:**

One of the three camera feet is designed to accommodate the plug connection of the LED ring and power supply unit. Push the connecting plug to the LED ring through the round opening on the underside and into the slot in the base. During subsequent installation, ensure that the plug of the LED ring is positioned on the arm with the shaft. Insert the plug from the LED ring through the hole in the cover. Now connect the two plugs and screw the cover to the arm.



## 4.2 Autodarts Vision adaptor kit



### Adaptor kit parts list

- 3x M3 x 8 mm
- 3x M3 square nut
- 3x adaptor base
- 3x adaptor cover

#### Step 1:

Screw the adapter base to the Autodarts Vision Arm using the M4 screws.

#### Step 2:

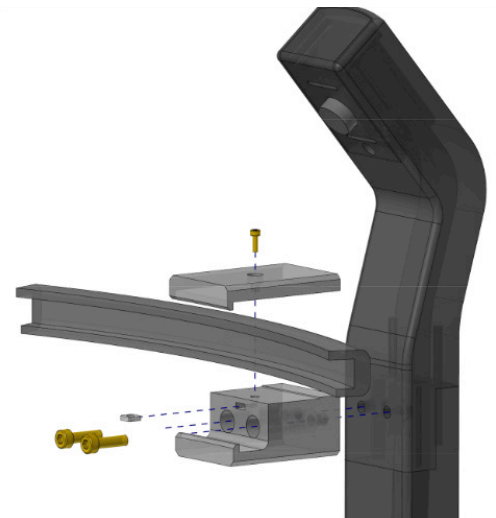
Insert the square nut into the base as shown in the attached picture. Repeat steps 1-2 with the other two arms from the Autodarts Vision Set.

#### Step 3:

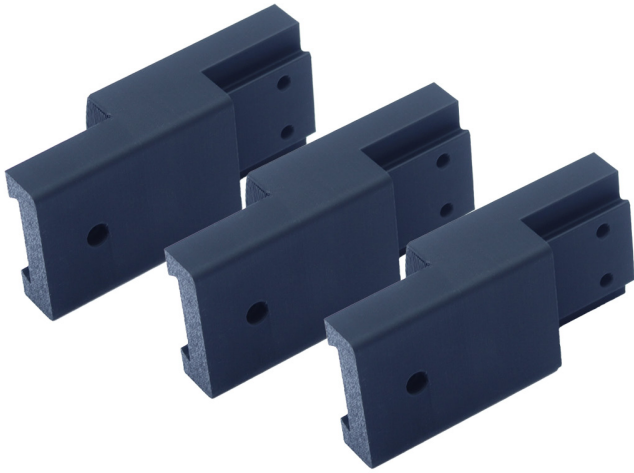
Place the Target Corona LED ring into the adapter base.

#### Step 4:

Screw on the cover using the M3 screw supplied.



### 4.3 Autodarts Vision extender kit



#### Extender kit parts list

3x M3 x 8 mm

3x M3 square nut

3x extenders 40mm or 56mm

#### Step 1:

Hold the Autodarts Vision arm in the palm of your hand, the foot with one hand and the camera head with the other.

Use slight force to pull the components apart by carefully wiggling side to side.



#### Step 2:

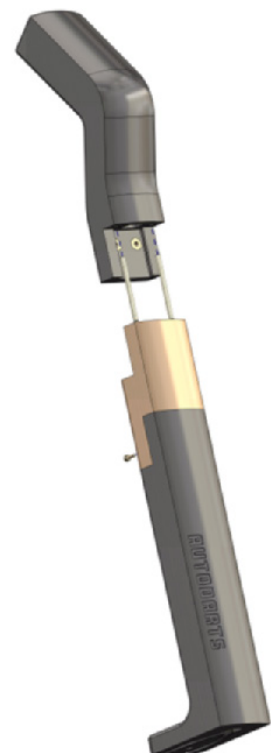
Insert the M3 square nut into the recess provided.

#### Step 3:

Slide the Autodarts Vision Extender onto the base and screw it in place using the M3 screw supplied.

#### Step 4:

Insert the two dowel pins of the feet into the upper part of the extender. Then carefully push the camera head together with the extender. Repeat steps 1-4 for the remaining two arms in the Autodarts Vision set.



## 4.4 Wall mounting

### Tools needed

Drill / 6 mm masonry bit  
Pencil for marking  
Spirit level

### Materials supplied

3x 6 x 36 mm dowels  
Pencil for marking

### Marking the drilling holes on the wall

To mark the drilling holes, the packaging sleeve has been printed with a 120-degree angle which can be cut out along the dotted lines (Fig. 1).



Now mark the centre point of the dartboard (173 cm from the floor) on the wall. Now place the template on the centre point (see Fig. 2). Use a spirit level to line the template up horizontally.

Next, mark the two outer points on the wall.





In the next step, turn the template so that the angled sides of the template connect the centre and the horizontal point with the outer ends (see Fig. 3). Now mark the missing outer point on the wall.

### **Please check**

There should now be four marked points on the wall: a centre point (bullseye) and three for each of the holes in the Autodarts Vision camera holder.

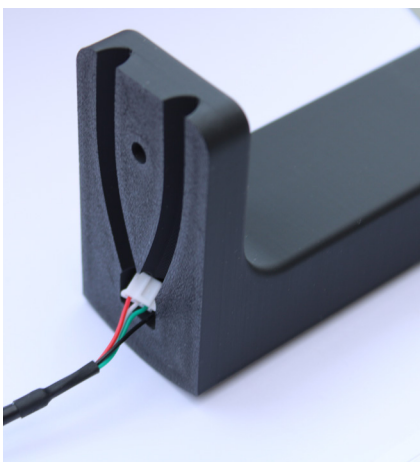
The distance from the centre to the outer points is 33.6 cm and the distance between outer points is 58.2 cm.

Next use a 6 mm masonry bit to drill a hole approx. 50 mm deep where each of the three outer points is marked. Then insert a dowel into the holes you just drilled.

Take the fully assembled Autodarts Vision Arm and route the camera cable into the cable duct provided on the underside of the base.

Connect the three camera cables to the 3-in-1 USB cables supplied.

Attach the three Autodarts Vision arms to the wall using the 4 x 45 mm screws supplied.



### **Positioning the camera cables**

There should now be four marked points on the wall: a centre point (bullseye) and three for each of the holes in the Autodarts Vision camera holder.



#### **INFO:**

The arm holding the plug connection of the LED ring and power supply unit has an additional cable duct on the underside. This allows the cables of all arms to be routed to the outside in one place.

When assembling the arms, tighten the screws only so they can still be turned easily. This allows the LED ring to be screwed onto the Autodarts Vision arms without being too tight.

After mounting your LED ring, screw the arms to the wall.



### Connecting the USB connectors

Connect the USB cable from each camera to the three USB connectors on the USB splitter cable supplied. Next, connect the USB splitter cable to a suitable USB port on your computer.

## 5. Use

Software is required in order to use Autodarts Vision. This can be downloaded from “unbox.autodarts.io”, then follow the instructions on the website.



#### INFO:

If the image from the camera is blurry, the focus can be adjusted by twisting the camera lens.

### 5.1 Fault finding



#### WARNING:

If there is any unusual noise, smoke or smell, there is a risk of fire or electric shock! Switch off the power to the device immediately and contact a specialist.

## 5.2 Cleaning and maintenance



### **WARNING:**

Make sure the device is disconnected from the power supply before starting any cleaning. Never use fluids to clean the device. Do not use organic solvents (such as thinners) or abrasive cleaners to clean the device!

Use a dry cloth for cleaning and clear dust and loose particles from the device on a regular basis. To do this, open the camera cover and remove any dust from the cameras. To clean the camera lens, use a microfibre cloth and run it over the camera lens in a circular motion to remove any dirt and grease deposits.

## 6. Disposal

This device does not release any hazardous substances. Dismantling therefore requires no special care, as no components are made of hazardous materials. However, it must not be disposed of with household waste.



Electrical and electronic devices contain valuable recyclable materials, and often parts such as batteries, rechargeable batteries or oil, which can pose a risk to human health and the environment if handled incorrectly or disposed of incorrectly. These parts are necessary for the device to function properly, however. Devices marked with this symbol must not be discarded in the household waste.

All packaging material can be recycled. The following materials were used in the design: PLA, steel, copper. These materials are particularly found in the following parts:

Legs, camera head, extender, adaptor

For disposal, we recommend sorting depending on the type of material used in the individual parts and taking them to designated collection or recycling points.

## 7. Legal

### **Declaration of Conformity**

Autodarts GmbH hereby declares that this product fulfils all relevant directives and regulations applicable in the European Community.