# H[y]bris

Shock *ABSORBER*

# Instruction Manual


iDEA VISION GmbH

Stay *FOCUSED*

www.idea-vision.de

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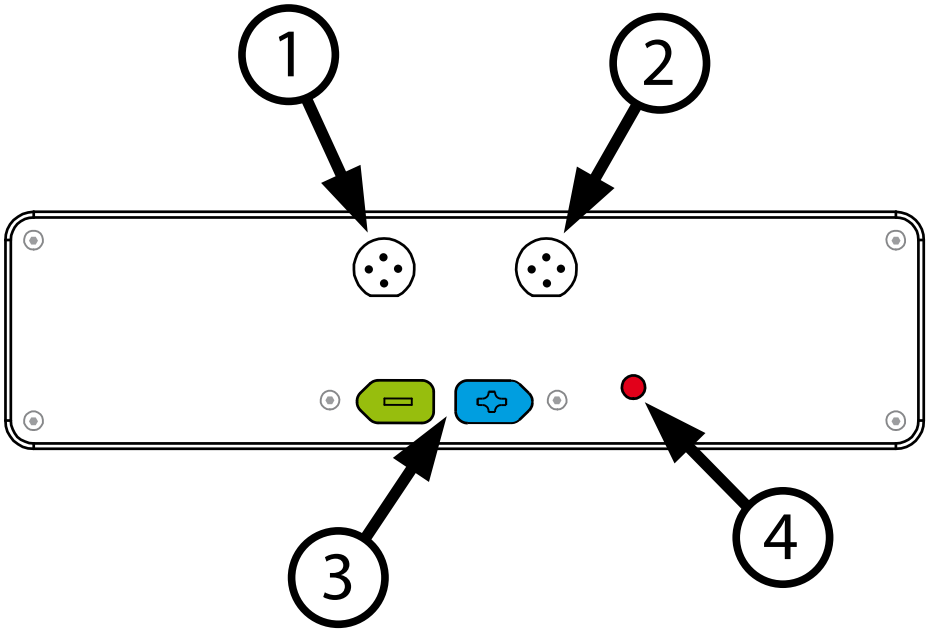
# Electrical Data:

| | |
|---|---|
| Input Range: | 8V – 30V DC |
| Current A: | 0,6 A (max) |
| Consumption appr.: | 10,8 W/h |

| | |
|---|---|
| Hybris Data: | |
| Spring range appr.: | 46 cm / 18.1 ´´ |
| Ambient temperature: | - 30°C to + 80°C / - 22°F to + 176°F |
| Hybris weight: | appr. 14 kg / 31 lbs |
| Payload: | 1 kg - 40 kg / 2 lbs - 88 lbs - min/max<br>(Depending on how it is used) |




1-2 4 pin mini XLR male

Pin1 = Vcc 8-30V
Pin2 = GND

3 Manual Button

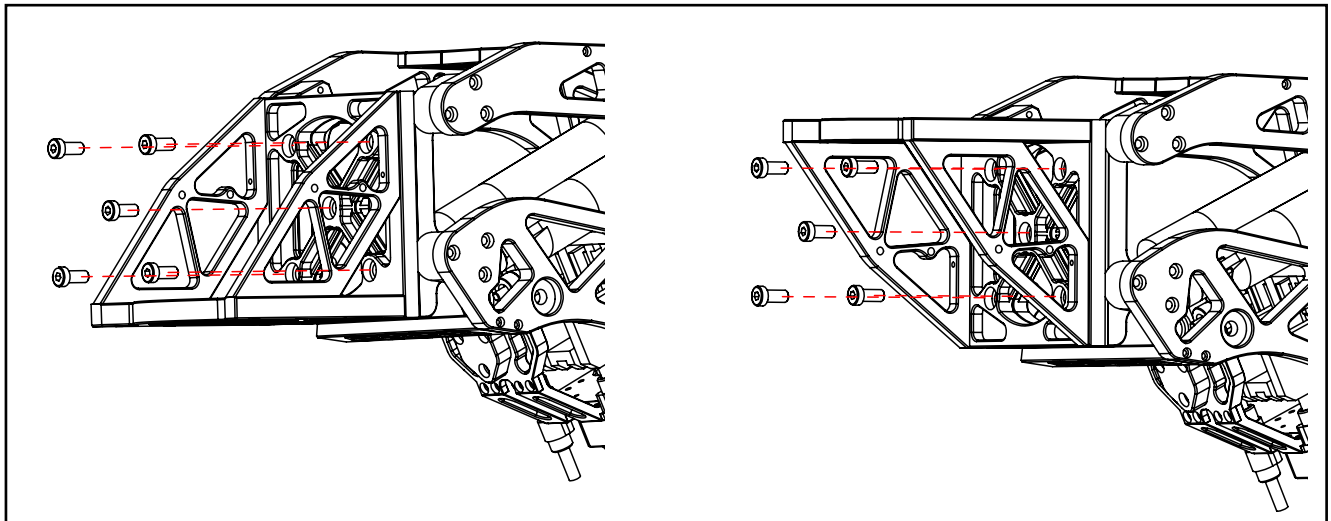
4 LED

- Calibration check
- Searching for bluetooth Manual Mode
- Bluetooth connected with device

drawing 1

# Mounting:

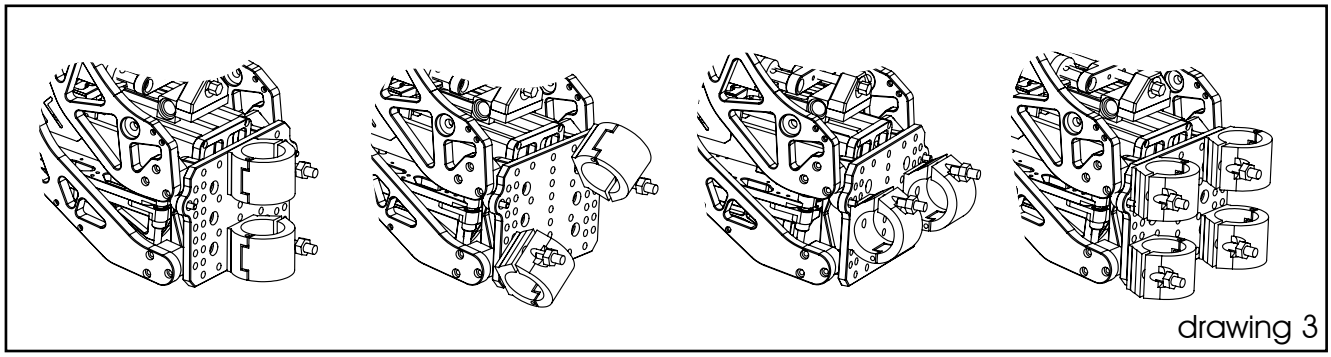
Front Mount  13x 3/8" hole, 2x 3/8" long hole, 4x M8 long hole. (drawing 2)
Turning the Front Mount under or over slung. Release 5 x M8 screws, turn around, and fix it again.



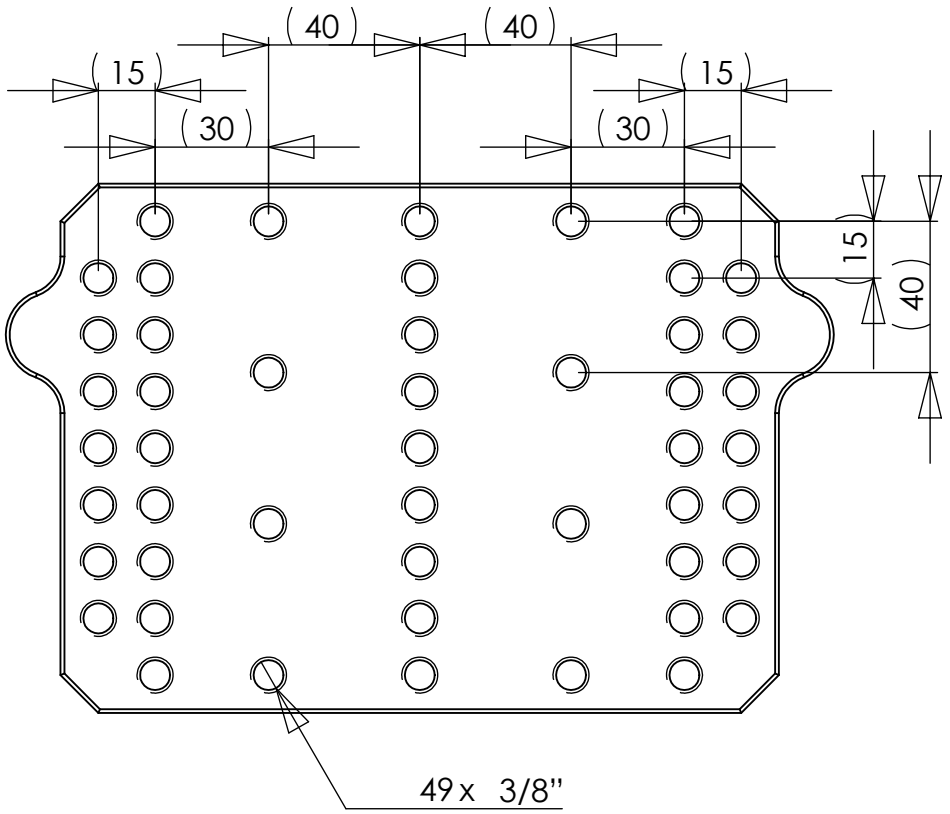
drawing 2

Back Mount  49 threads (3/8")(Drawing 4) for clamps and connectors available.
Mount the Hybris Shock Absorber to the 50 mm speed rails with 2-4 clamps. (Drawing 3)

Make a quick estimation of the mounting height, so that the set up isn't mounted too low on the tube/s. This could result that the camera is hitting the ground at the bottom of the shock absorber boom range.
At this point, a quick estimation is all that is needed. You can fine tune this later, when you have the gimbal and camera rigged.
Mount your gimbal and camera with all the accessories needed for your shoot, batteries lenses cables etc., and let it float freely on the Hybris Shock Absorber.

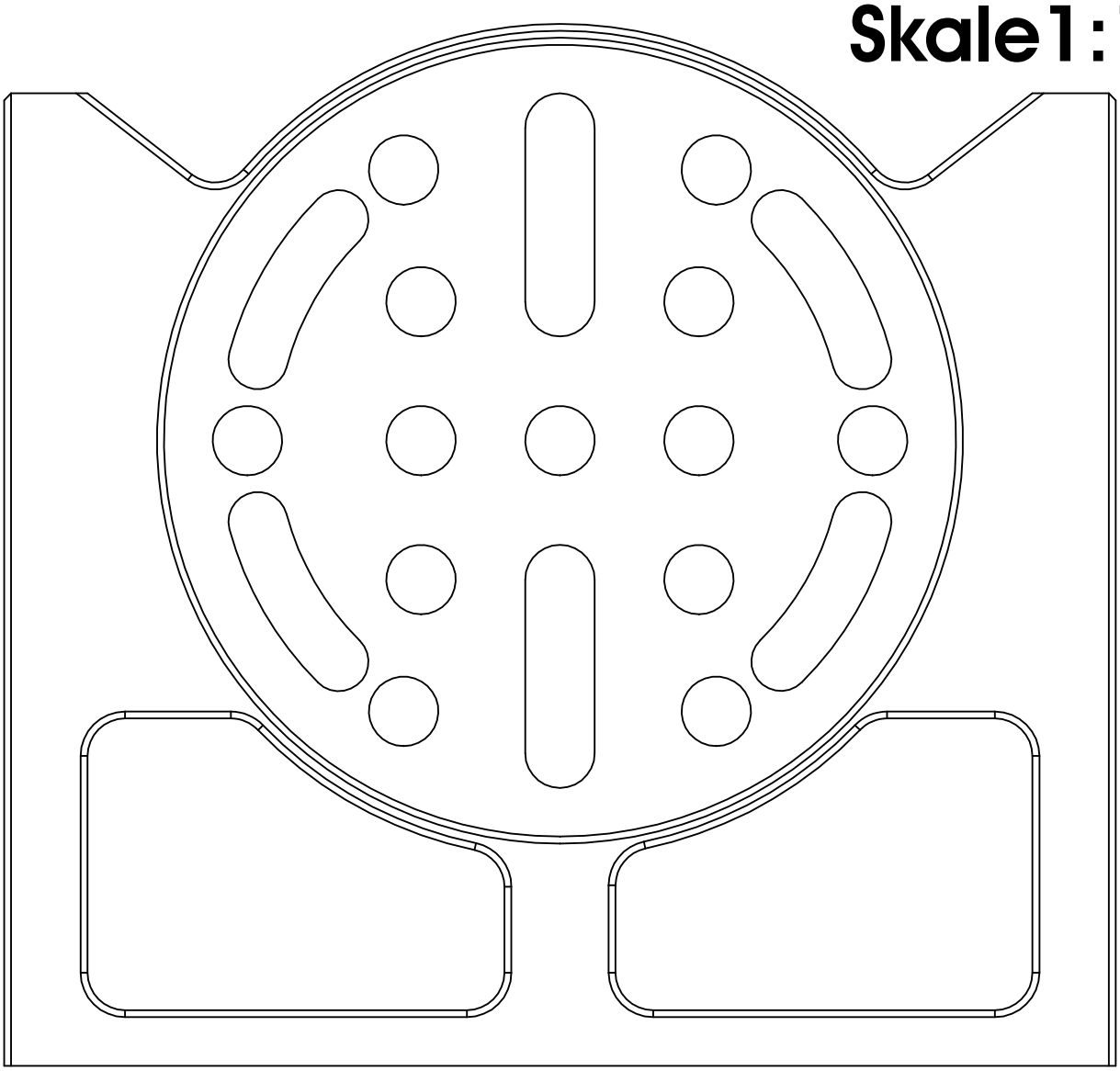


drawing 3




drawing 4

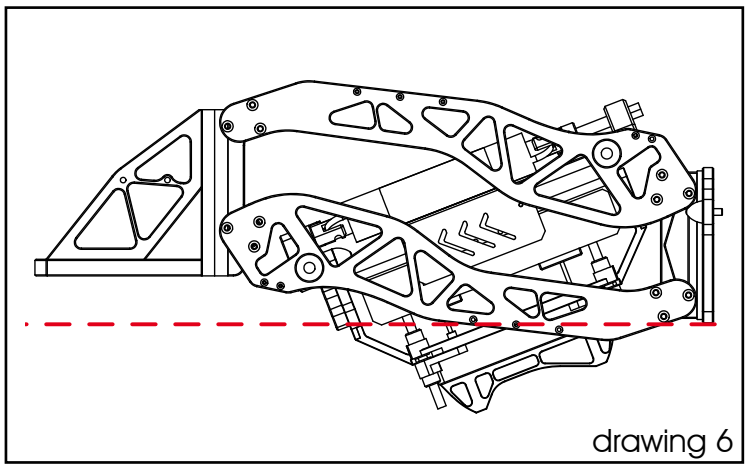
# Skale 1:1

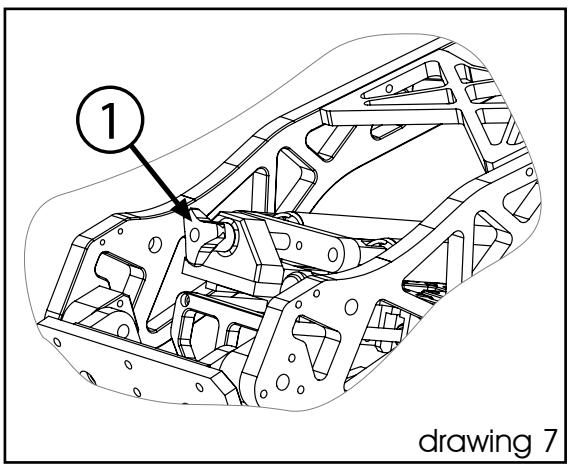


Print 1:1 for Testing

drawing 5

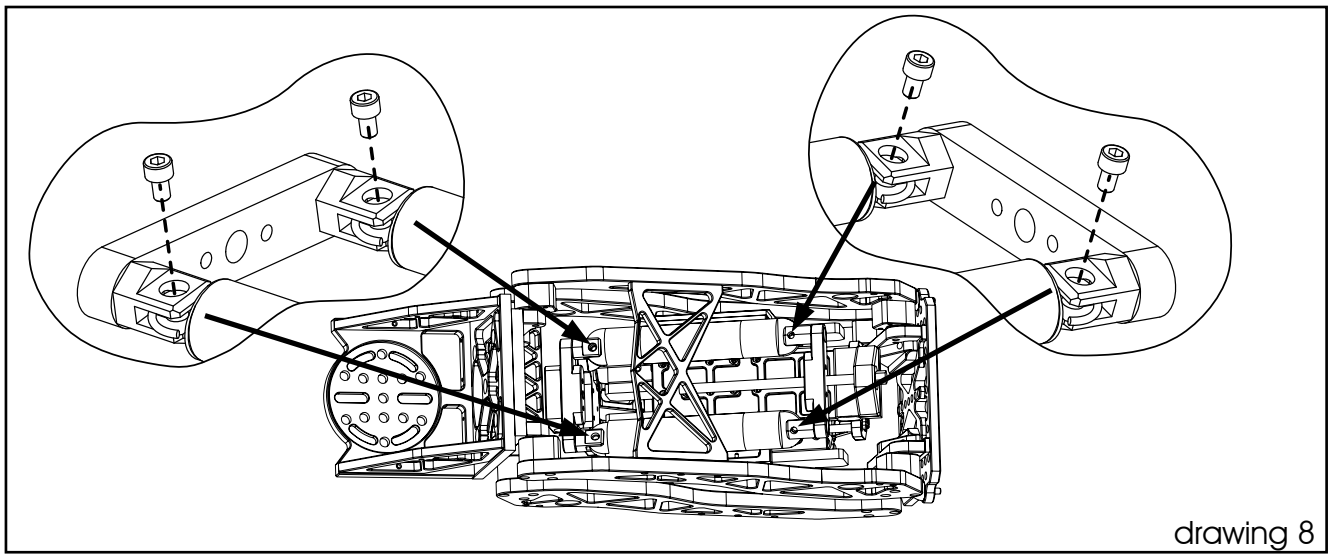
# Spring adjustments:


drawing 6



drawing 7

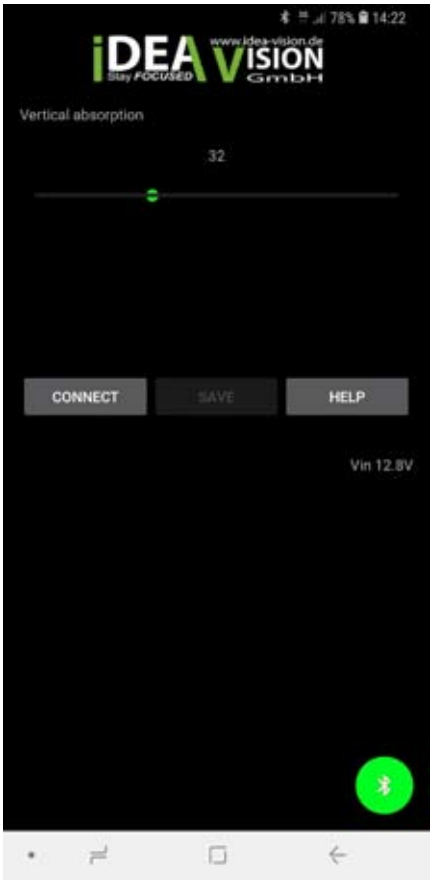
Begin with adjusting the vertical arm dampener to its softest position. This is where the dampener provides the least force. This is done by turning the knob (1) on the dampener. (drawing 7)
Let the system hang freely on the Hybris Shock Absorber and look at the boom angle of the shock absorber.
If the shock absorber is booming up that means that the springs are adjusted to strong and you will need to release some tension. Unscrew the knob on the dampener until the Hybris floats in horizontal position.
If the shock absorber, on the opposite, is booming down you need to tension the spring knob. Tension it until the Hybris is horizontal. (drawing 6)
At this point, push the arm to its lowest and highest, most boomed down and up position, and make sure the rig can't touch the ground or top.
Keep in mind that in very uneven terrain, there may be bumps sticking up, so make sure to have proper clearance based on your conditions.


drawing 8

To change springs – release 4 screws – put the required springs and close screws.

| | |
|---|---|
| Spring white marked | 1 - 9 kg / 2 – 20 lbs |
| Spring blue marked | 8 - 16 kg / 18 – 35 lbs |
| Spring black marked | 15 - 24 kg / 33 – 53 lbs |
| Spring red marked | 24 - 40 kg / 53 – 88 lbs |

# Damping adjustment




Connect the Hybris Shock Absorber with any power supply between 8-30 V DC.(drawing 1)
The cabel mini XLR to car supply is included in the Hybris kit.

You can control the Hybris manually or via the Hybris App:
Manually: The Hybris has 2 buttons with
a +/- sign(drawing 1),
that you can push to release or add resistance force on the damping. (drawing 1)

App (Android/iOS): Connect your device (smartphone, tablet, computer) via Bluetooth with the Hybris Shock absorber.  If the Bluetooth button is green you are connected. The Hybris App has a bar for the vertical shock absorption, that you can move to release or add resistance force on the damping.

Download Android App: https://play.google.com/store/apps/details?id=com.ideavision.qubelift

From the softest position, lift the total set up by booming the Hybris all the way up, and force it with a sudden push to boom down and see its reaction. If the Hybris swings up and down a few times after return to center, then the damping is adjusted too soft and you need to add force. Add a few clicks on the dampener + button (manually) or pull the bar to the right (App) and try again, repeat until the shock absorber swings only once when forced and then it stops in center. Excessive swing is not ideal for the vertical stabilization. Also, excessive force adjustment will make the boom action very stiff and make the shock absorber less reactive.
That means that you need to be somewhere in between. That is also relative to the nature of shot. If you intend to shoot on very rough terrain, for example, it's better to be adjusted little stiffer than usual as the bumps will have more effect on the set up. If the road is flat and smooth, you can have a little softer adjustment.

After your adjustment, make a quick test run and correct if necessary.

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# Precautions

Always clean the piston rods, remove mud, humidity and/or dust.

Always adjust the height of the set up, so that the camera is kept at a safe distance from the ground or top.

When you add safety straps for the camera, make sure they're long enough to allow for the shock absorbers total boom range. If the strap is too short, it will keep the arm of doing its job and might result in damage and vibrations.

Always run a quick check before and after the shot to locate loose screws etc. Especially if you're shooting in rough terrain.

Always make sure your gripping tubes and clamps are safely and securely configured, and that the grip set up is safe.

When you store the Hybris shock absorber release tension of the springs.

In case of any further doubt, don´t hesitate to contact us!

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# Tips for safe handling

**Danger**


## Swallowing

Children could swallow small magnets.
If several magnets are swallowed, they could get stuck in the intestine and cause perilous complications.

Magnets are not toys! Make sure that children don't play with magnets.
Do not dismantle the Hybris by yourself - Contact IDEA VISION GmbH for service if necessary.

**Danger**

## Electrical conductivity

Magnets are made of metal and conduct electricity.
Children might try to put magnets into a power outlet and thereby suffer from an electric shock.

Magnets are not toys! Make sure that children don't play with magnets.
Hybris is made of metal and conduct electricity.
Do not dismantle the Hybris by yourself - Contact IDEA VISION GmbH for service if necessary

**Warning**

## Contusions

Magnets have a very strong attractive force.
- Unsafe handling could cause jamming of fingers or skin in between magnets. This may lead to contusions and bruises.

Do not put parts of your body in between of the Hybris.
Mount the Hybris safe to connection points.
Unsafe handling could cause jamming or injuries.

**Warning**

## Pacemaker

Magnets could affect the functioning of pacemakers and implanted heart defibrillators.
- A pacemaker could switch into test mode and cause illness.
- A heart defibrillator may stop working.

- If you wear these devices keep sufficient distance to magnets.
- Warn others who wear these devices from getting too close to magnets.

**Warning**

## Metal splinters

Neodymium magnets are brittle. Colliding magnets could crack.
Sharp splinters could be catapulted away for several meters and injure your eyes.

- Avoid the collision of magnets.
- Wear safety glasses when handling larger magnets.
- Make sure that nearby people are also protected or keep their distance.

Do not dismantle the Hybris by yourself - Contact IDEA VISION GmbH for service if necessary.

**Caution**

## Magnetic field

Magnets produce a far-reaching, strong magnetic field. They could damage TVs and laptops, computer hard drives, credit and ATM cards, data storage media, mechanical watches, hearing aids and speakers.

- Keep magnets away from devices and objects that could be damaged by strong magnetic fields.

The Hybris has a shielded magnetic field. Do not put devices in between of the Hybris.
Do not dismantle the Hybris by yourself - Contact IDEA VISION GmbH for service if necessary

**Caution**

## Combustibility

When machining magnets, the drilling dust could easily ignite.

Stay away from machining magnets.
Do not dismantle the Hybris by yourself - Contact IDEA VISION GmbH for service if necessary

# Tips for safe handling

**Caution**

## Nickel allergy

Magnets contain nickel, also those without nickel coating.
- Some people have an allergic reaction when they come into contact with nickel.
- Nickel allergies could develop from perpetual contact with nickel-plated objects.

- Avoid perpetual skin contact with magnets.
- Avoid contact with magnets if you already have a nickel allergy.

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**Caution**

## Airfreight

Magnetic fields of improperly packaged magnets could influence airplane navigation devices.
In the worst case it could lead to an accident.

- Airfreight magnets only in packaging with sufficient magnetic shielding.
- The Hybris is magnetic shielded

Do not dismantle the Hybris by yourself - Contact IDEA VISION GmbH for service if necessary

**Caution**

## Postage

Magnetic fields of improperly packaged magnets could cause disturbances in sorting machines and damage fragile goods in other packages.

- The Hybris has a shielded magnetic field.

Do not dismantle the Hybris by yourself - Contact IDEA VISION GmbH for service if necessary

**Notice**

## Influence on people

According to the current level of knowledge, magnetic fields of permanent magnets do not have a measurable positive or negative influence on people. It is unlikely that permanent magnets constitute a health risk, but it cannot be ruled out entirely.

- For your own safety, avoid constant contact with magnets.

**Notice**

## Splintering of coating

Neodymium magnets have a thin nickel-copper-nickel coating to protect them from erosion. This coating could splinter or crack due to collision or large pressure. This makes them vulnerable to environmental influences like moisture and they could oxidise.

- Avoid collisions of magnets as well as repeated mechanical exposure (e.g. blows, bashes).
- Do not dismantle the Hybris by yourself - Contact IDEA VISION GmbH for service if necessary.

**Notice**

## Oxidation, corrosion, rust

Untreated neodymium magnets oxidise quickly and disintegrate.
Most of our magnets have a nickel-copper-nickel coating to protect them from corrosion. This coating provides some protection against corrosion.

- Avoid damages to the coating. Keep the Hybris clean and dry after using.
- Do not dismantle the Hybris by yourself - Contact IDEA VISION GmbH for service if necessary.

**Notice**

## Temperature resistance

Neodymium magnets have a maximum working temperature of -80 to 200°C.

- The Hybris has a working temperature of -30 to 80°C.
- If you use an adhesive, don't harden it with hot air.

**Notice**

## Mechanical treatment

Neodymium magnets are brittle, heat-sensitive and oxidise easily.
- When drilling or sawing a magnet with improper tools, the magnet may break.
- The emerging heat may demagnetise the magnet.
- The magnet will oxidise and disintegrate due to the damaged coating.

Stay away from mechanical treatment of magnets.
Do not dismantle the Hybris by yourself - Contact IDEA VISION GmbH for service if necessary