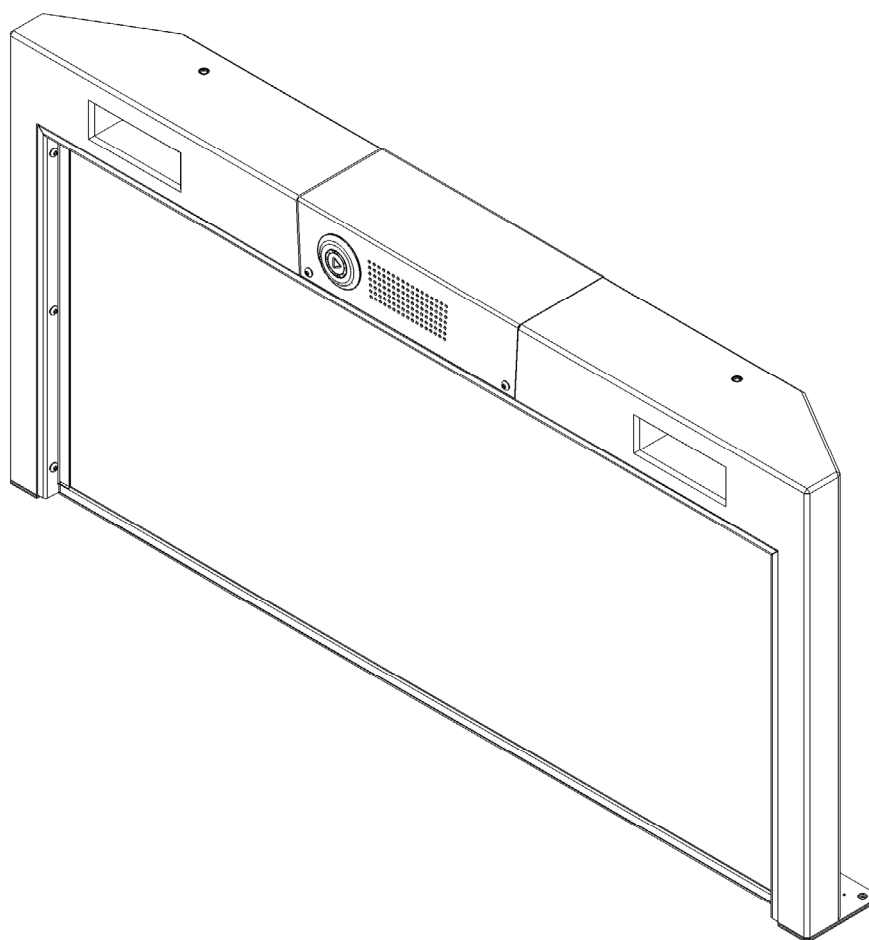


Toro installation manual

Version 1.6

19 November 2015



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This manual contains all information you need to install this product. Make sure you check all safety chapters and follow the instructions to prevent dangerous situations. If you have any remarks or improvements, please contact us.

Have fun with the product!

Yalp sports- & play equipment

T: 0031 547 289 410

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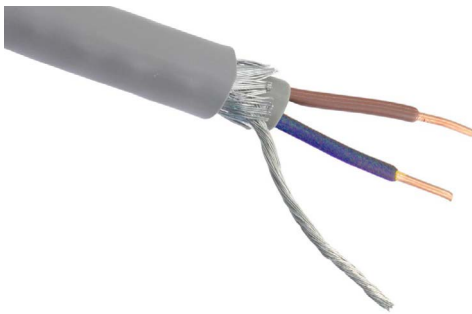
1 Preparation

For installing Toro it is recommended:

- To work with two persons

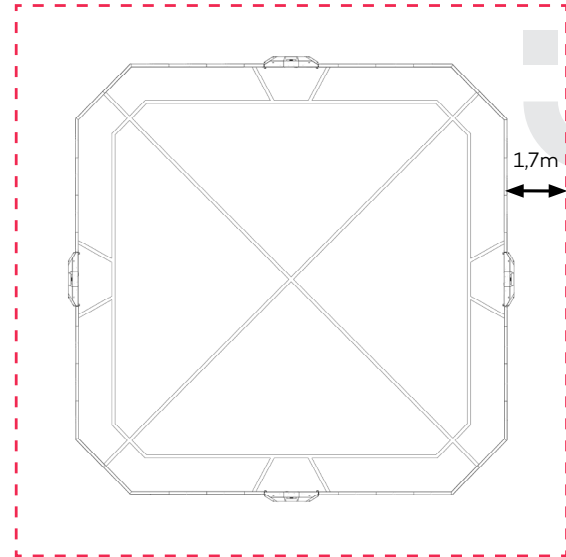
Make sure a power cable for the Toro is ready on location, with an length of at least 2 meters above ground. The power supply must be assembled on a separate group with a 30mA ground fault circuit interrupter (GFCI), fused on 10A or 16A.

Ymvr ground cable, 2 cores, 2,5mm². Maximum cable diameter; 18mm



When placing Toro:

Make sure at least 1,7m of free space without obstacles is available around the Toro field for installation and safety reasons.



Tools list

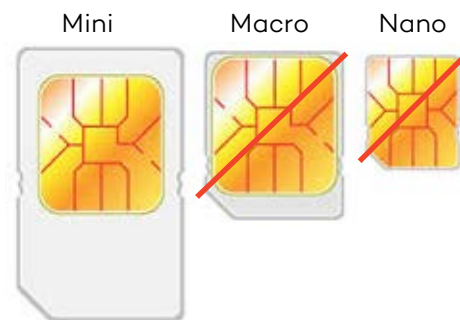
- Security Torx-40 bit (with hole cut-out)
- M8 tap
- M8 tap drill
- A fork spanner 13
- A cordless drill
- Socket head toolset (size 5)
- A bit holder
- A saw for the PVC pipes

Other

- Forklift truck/small crane
- Casing tubes, minimum inner diameter; 40mm. Length; ±13,2 m (3x)
- Electricity 230 V at master goal place.
- certified NEN1010 electrician to connect the ground cable to the socket.
- Loctite adhesive
- Mini sim card wit a 3G connection (250 MB/month)

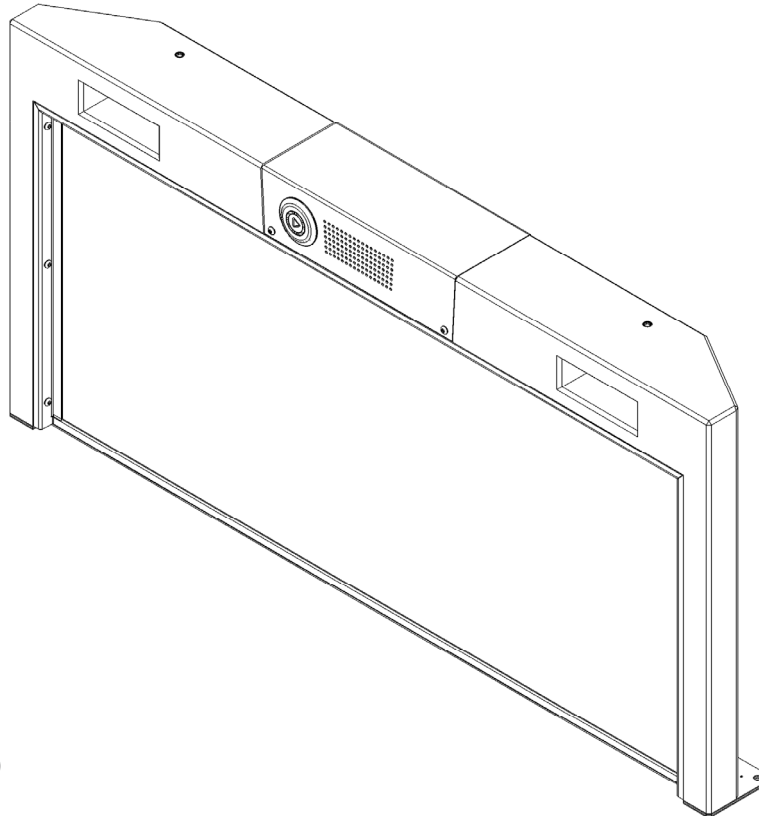
3G Sim card specifications

- Minimum of 250 MB/month
- 3G data subscription (no prepaid!)
- Mini sim card size (see image below)

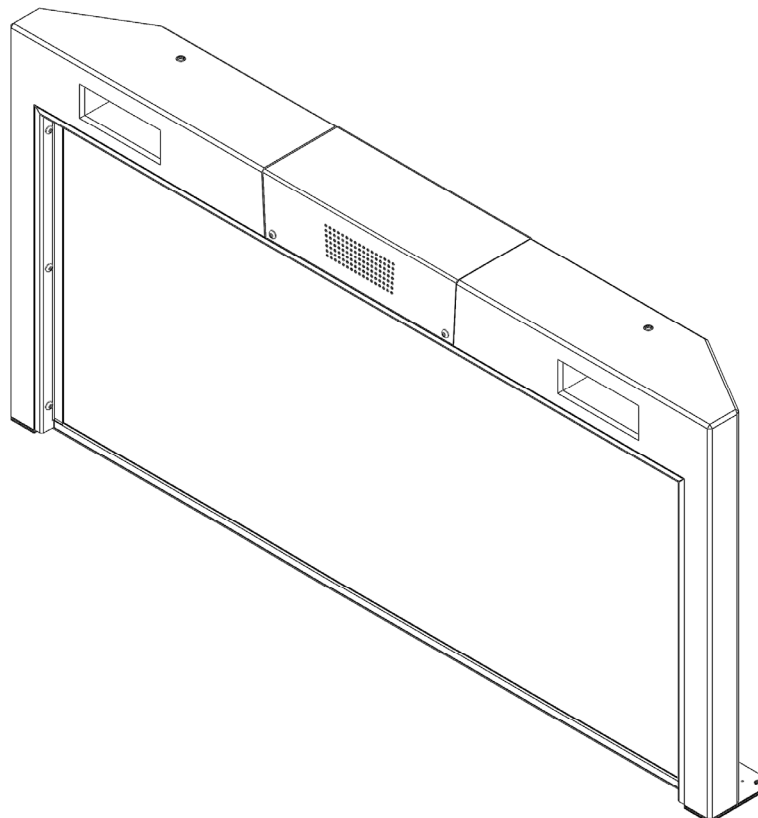


2 Toro goals isometric view

Toro master goal (1x)

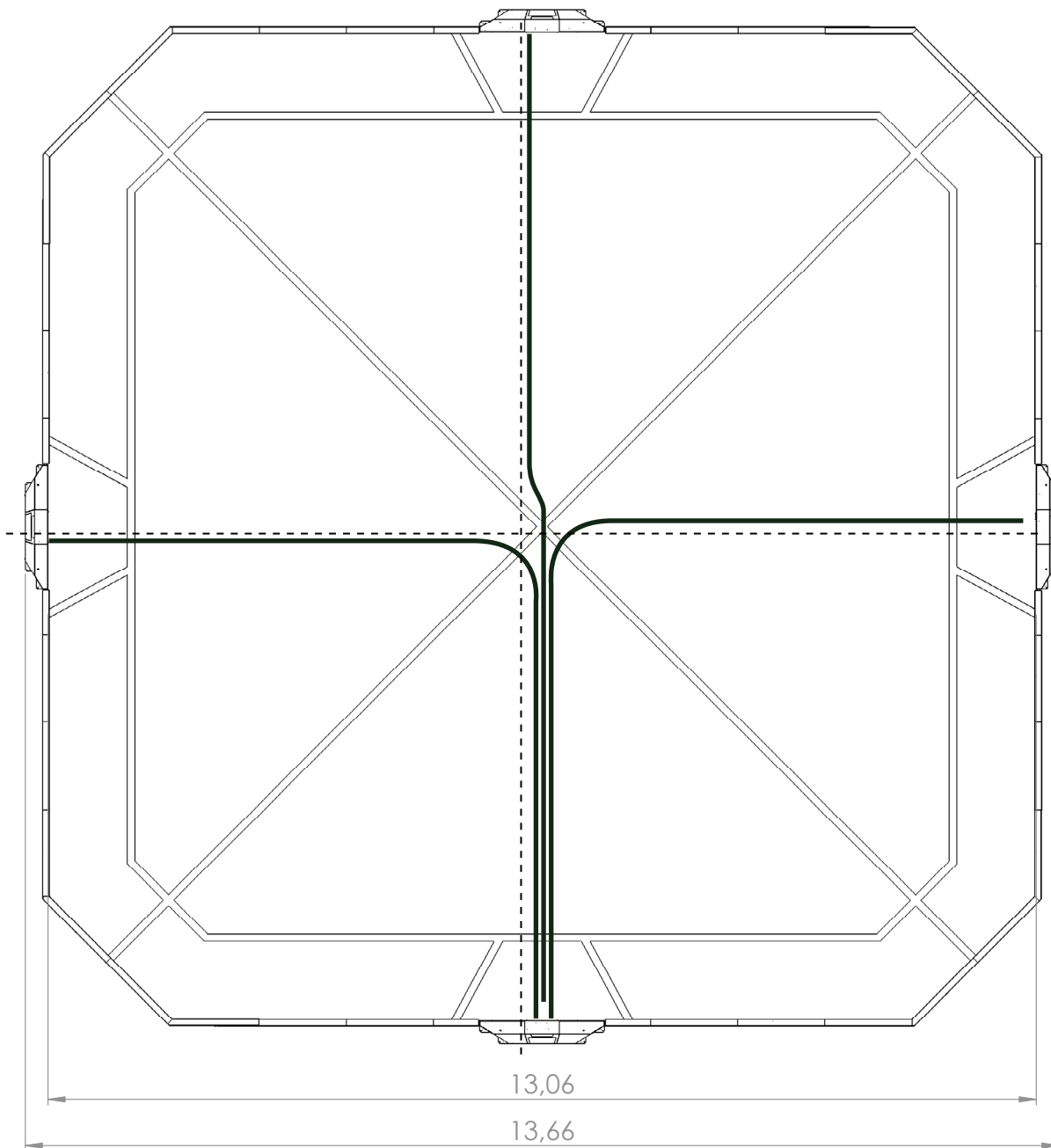


Toro basic goal (3x)



3 Cables

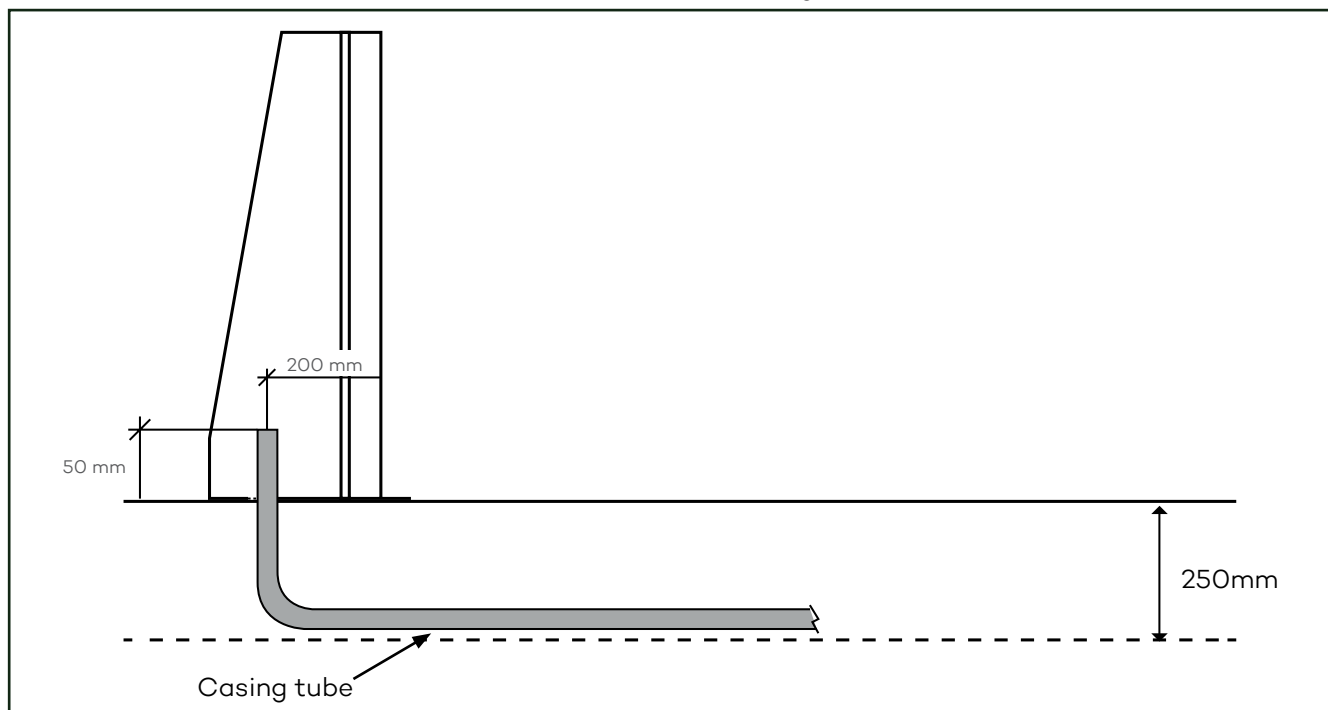
1. Install the 230V ground cable at the master goal. Make sure it is powered on a separate power group and has 2m extra length above ground.
2. Lay the casing tubes from the basic goals to the master goal, as shown in the illustration. Perform the bends with a minimum radius of 1m.



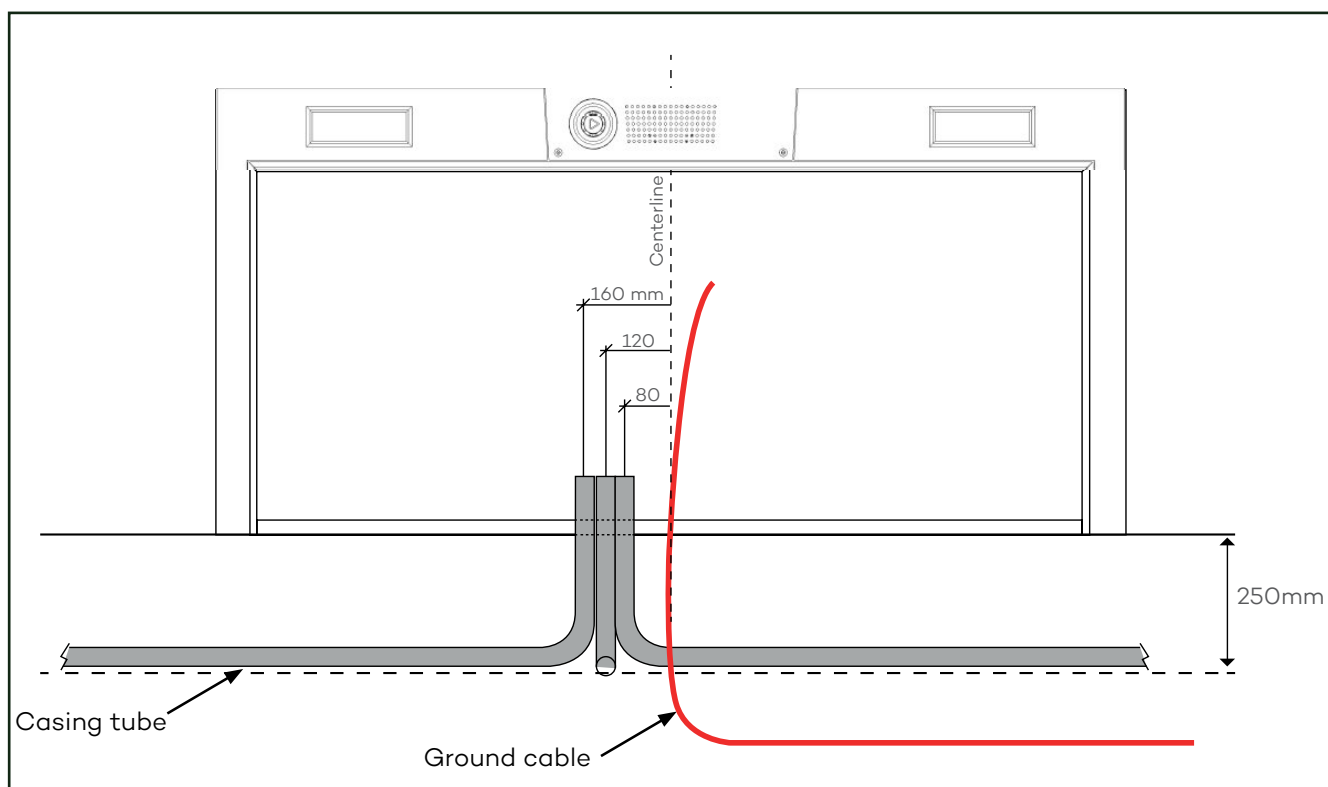
Master goal (placed in red section)

3. Make sure the casing tubes extend above the ground, $\pm 5\text{cm}$.

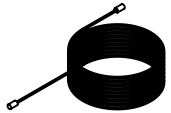
Groundwork basic goal

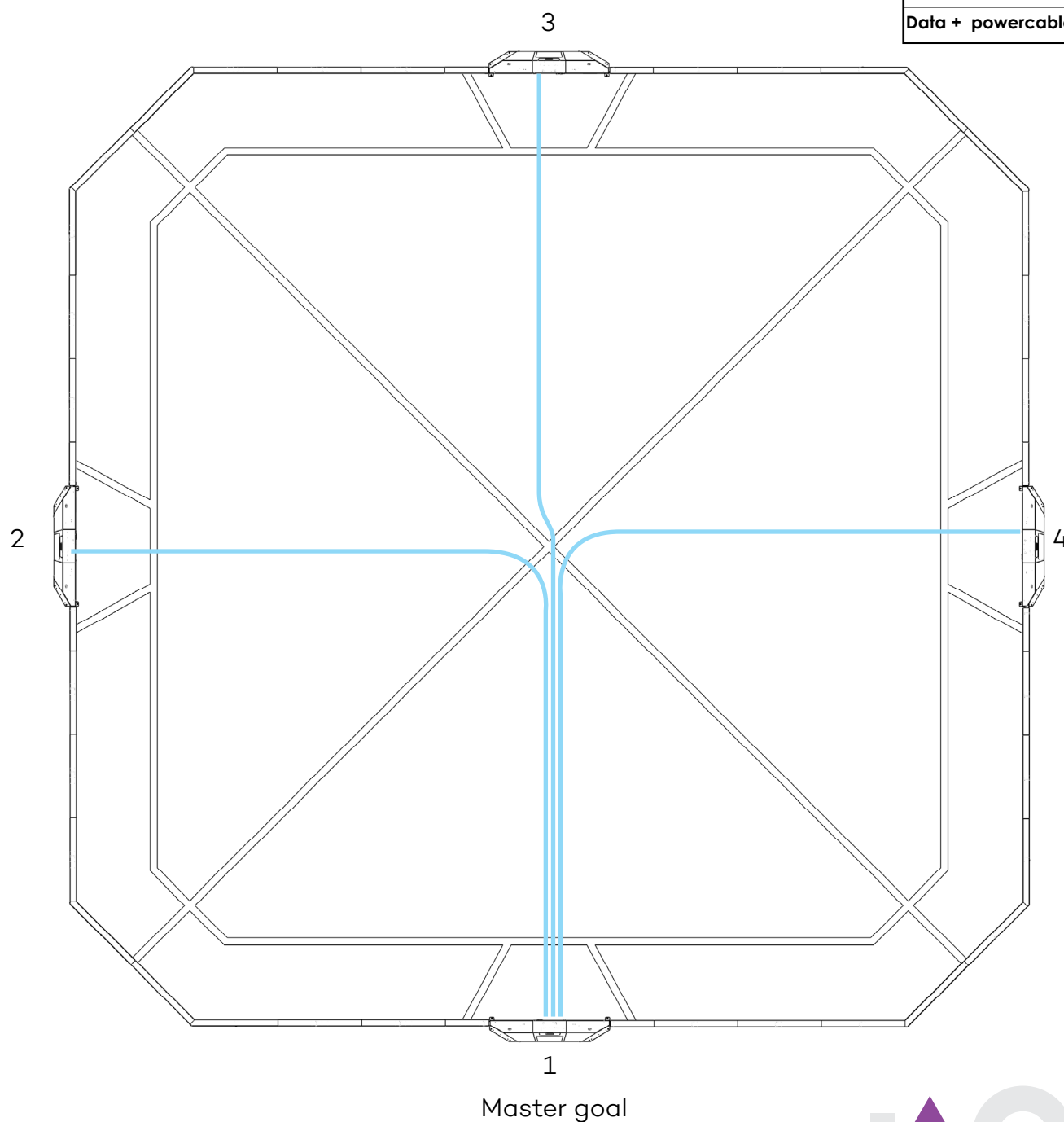


Groundwork master goal



4. Lead the data+powercables through the tubes.

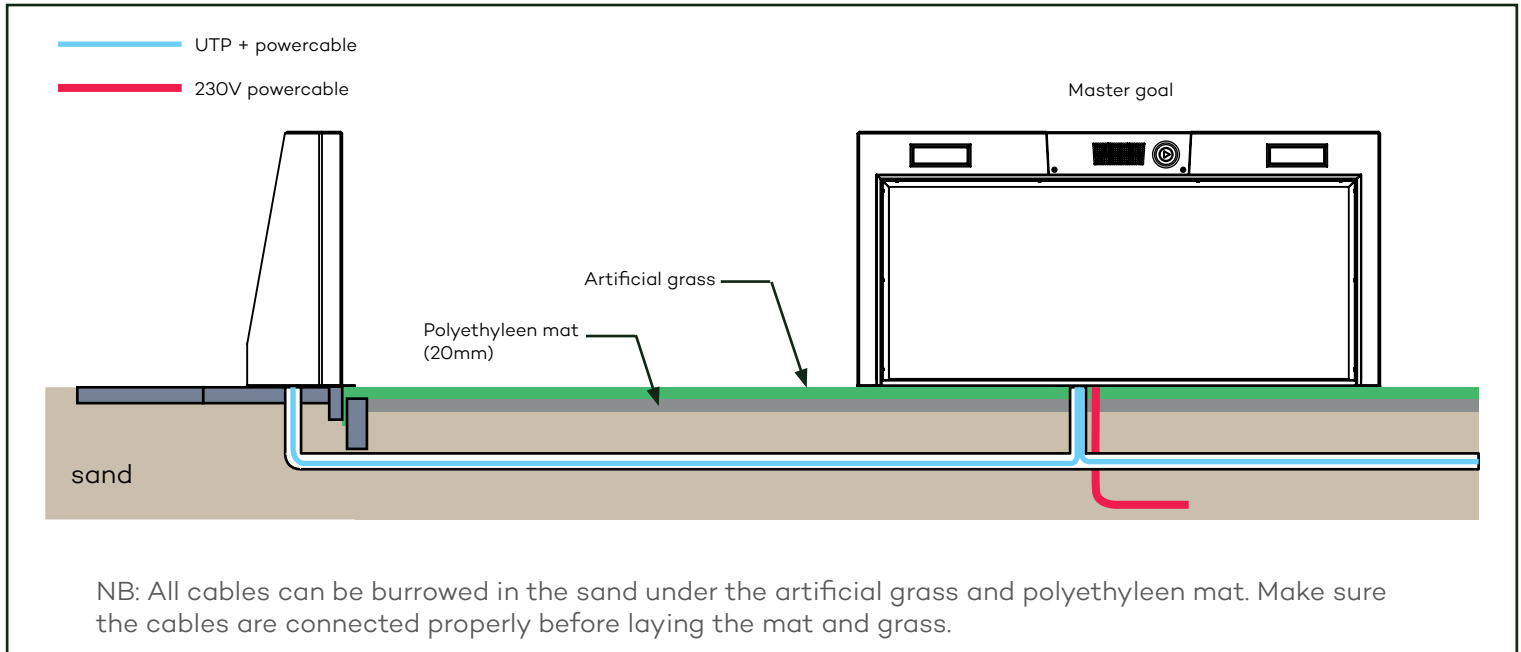
100-128	3 pcs
	
Data + powercable 18m	



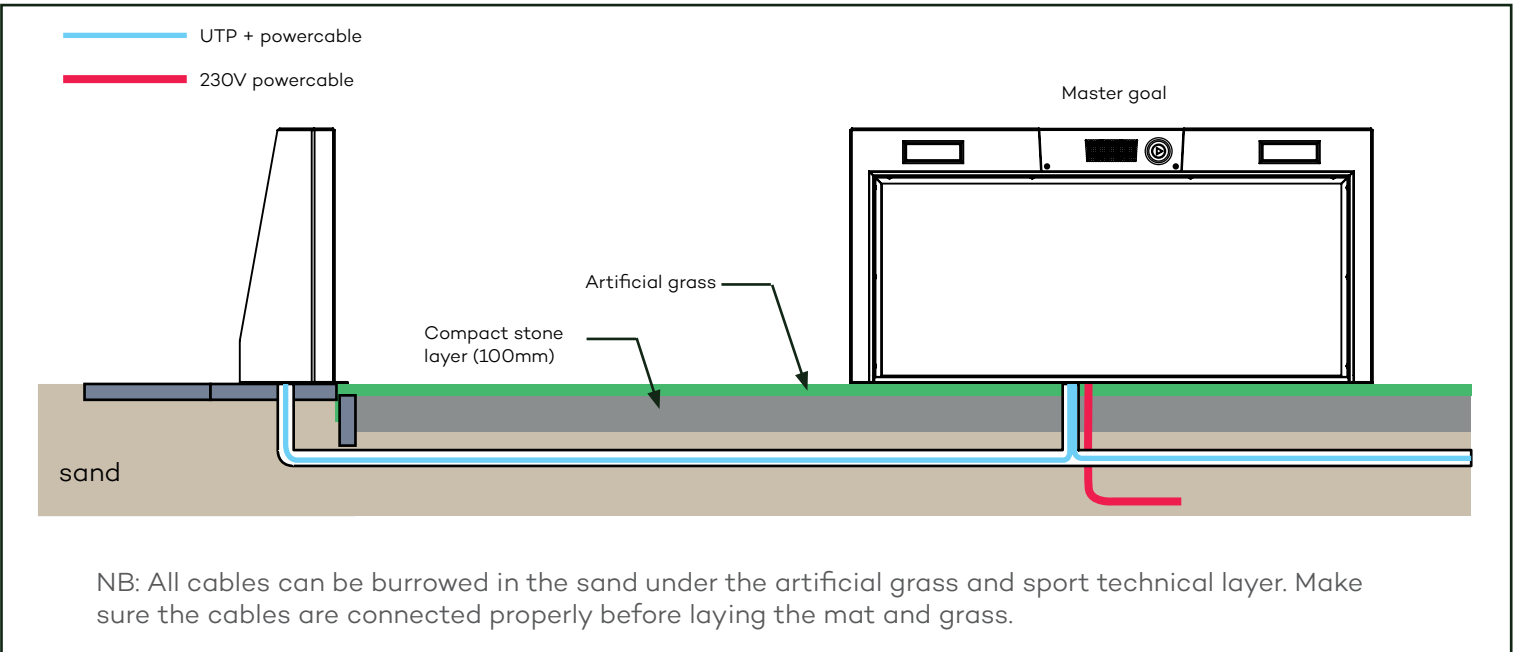
4 Field preparation

There are several alternatives for the Toro floor, depending on the type of the ground it will be placed on. Every alternative requires different placement. The following alternatives are possible:

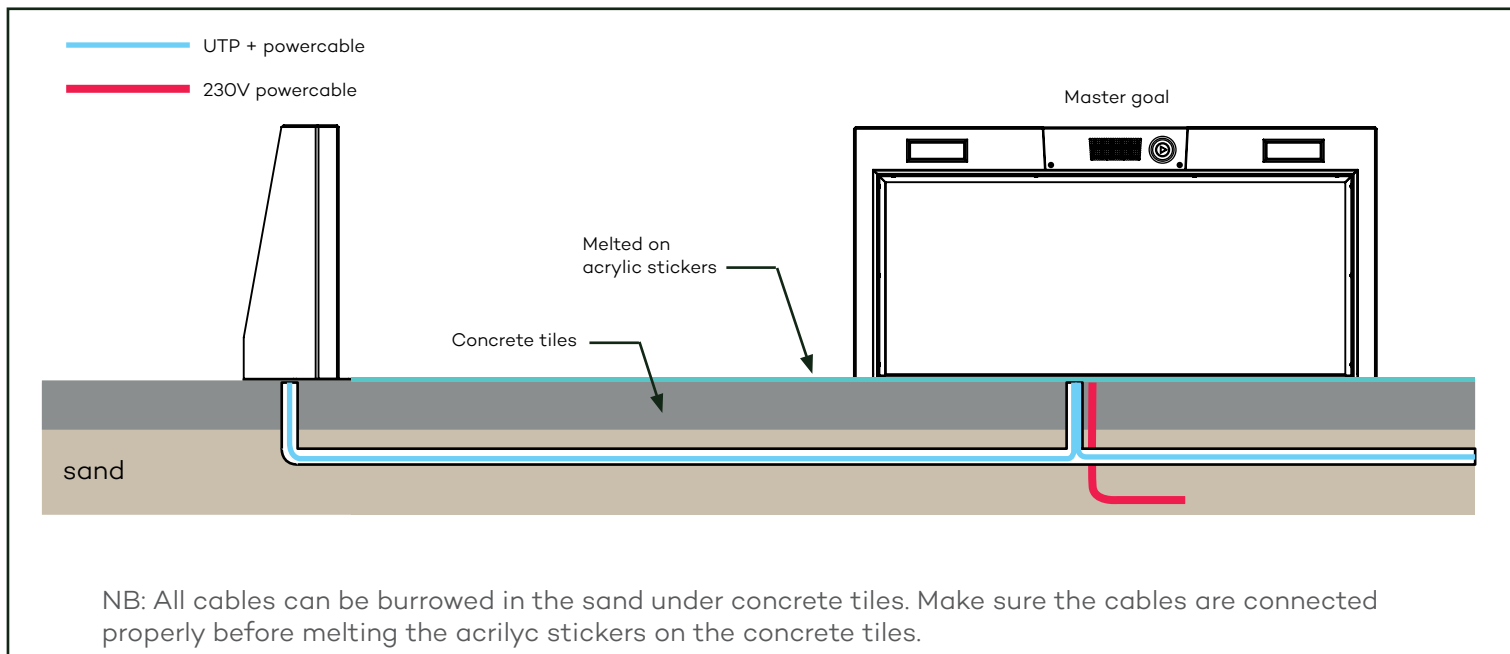
Option 1a: Artificial grass in ground - shockpad



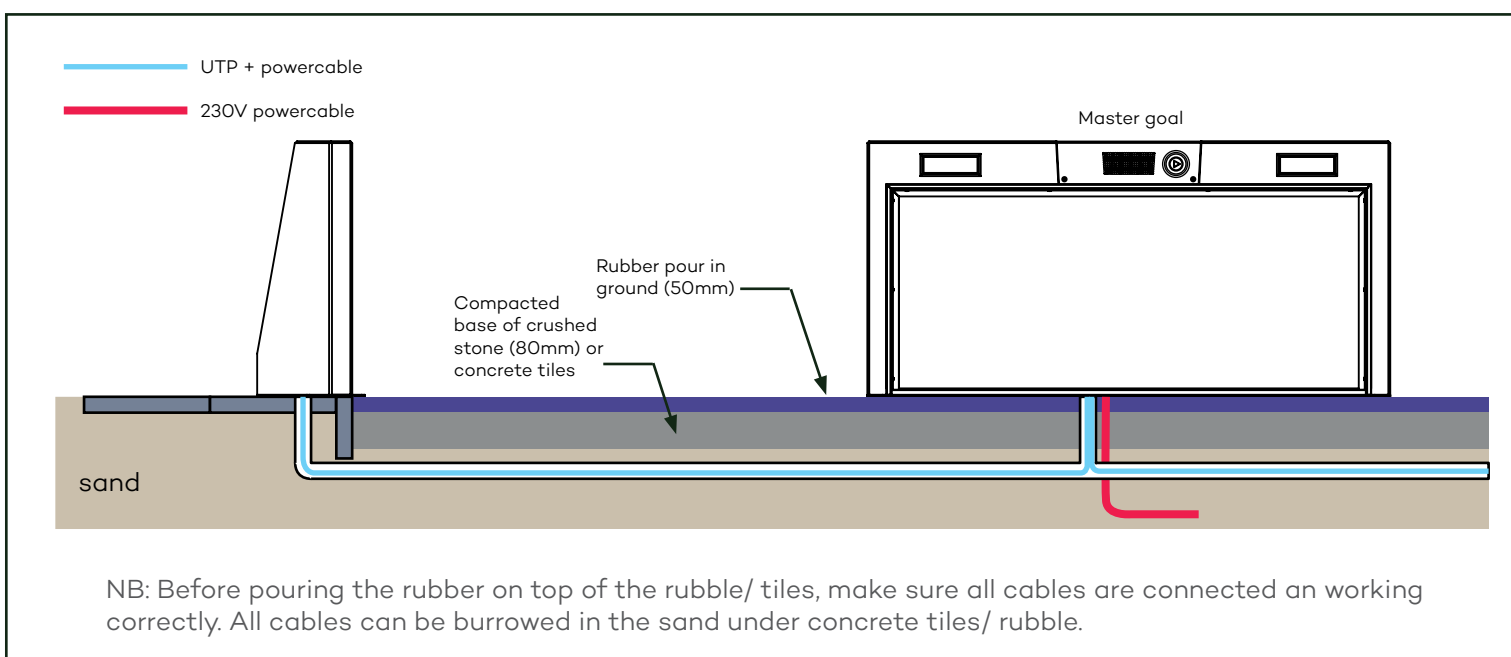
Option 1b: Artificial grass in ground - sport technical layer



Option 2: Floor graphics (wear-resistant pavement stickers or spray paint)



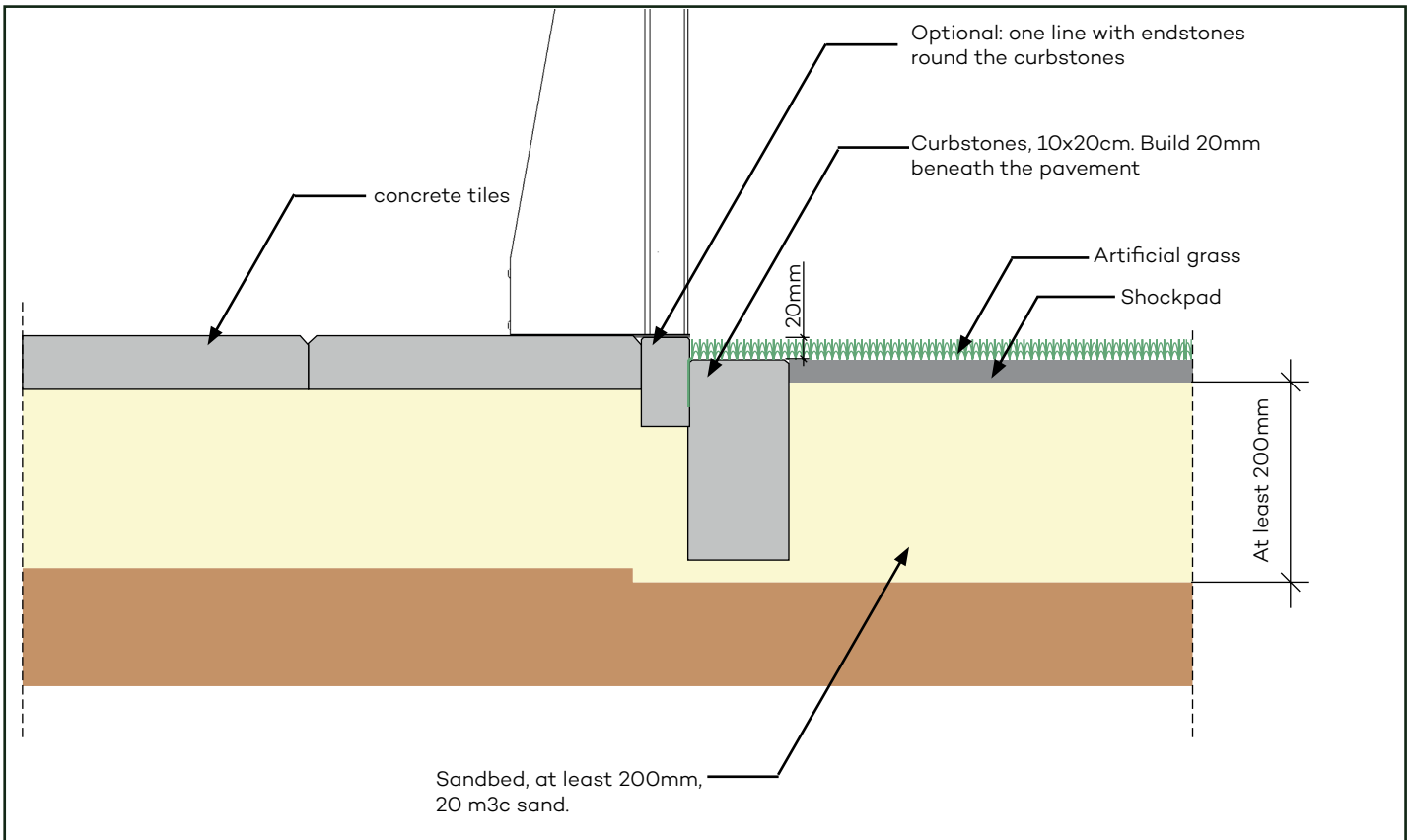
Option 3: Rubber pour in ground



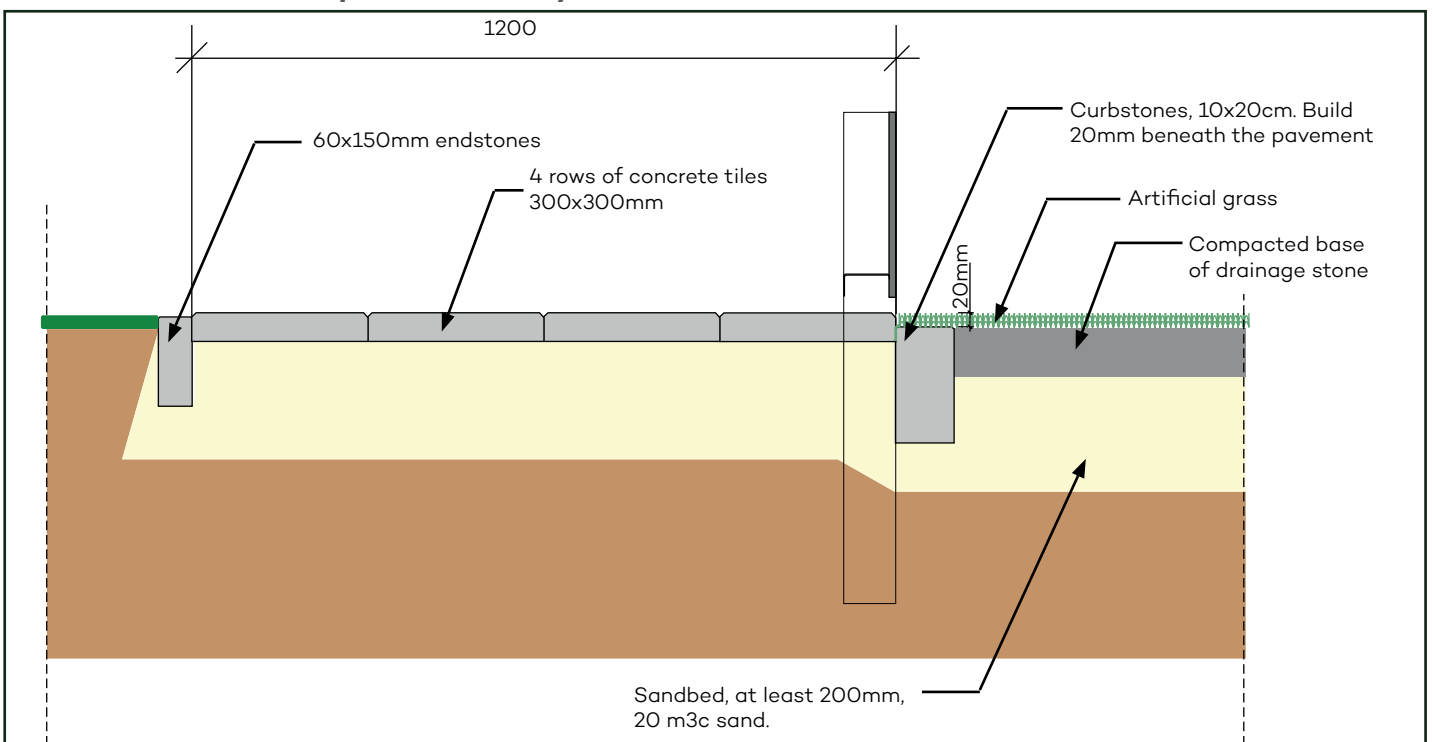
5 Artificial grass

There are two types of foundations for an artificial turf floor. How to install an artificial turf floor with a shockpad or sport technical layer: see the illustrations below.

Artificial turf floor - shockpad



Artificial turf floor - Sport technical layer

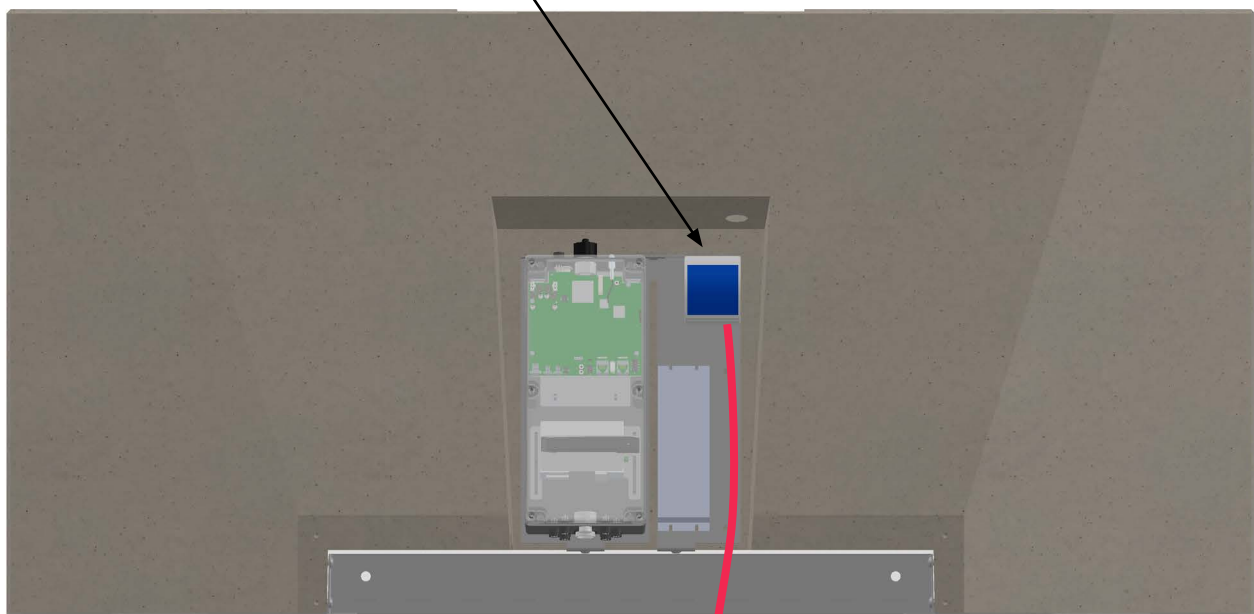


6 Electronics: Power

To ensure electrical safety, the power cable is double insulated and the Toro electronic parts operate at a safe low voltage (max 15V). All electronic parts are incorporated in the Toro construction and stored waterproof (IP65).

- The Toro needs to be powered by 230V AC
- The power cable (ground cable, possibly in protective tube) should be lead through the Toro construction to the mounting panel with the electronic parts
- The power cable needs to be connected to the IP44 power socket on the mounting panel by a certified electronic engineer
- For connecting the Toro, only the supplied Ecomate to power net cable may be used between the power socket and the safety transformer
- The connection value of the Toro is 230V , 2A
- The power cable needs to be assembled in the blue power norm 2P + earth contact box of class IP44 (also known as 'camping socket'). This power supply MUST be assembled on separate group with a 30mA ground fault circuit interrupter (GFCI), fused on 10A or 16A. For example with a protection box of the type: Merlin Gerin, MG 10A-B 19791 DPNA VIGI 30MA

Connection ground cable
to the IP44 power socket



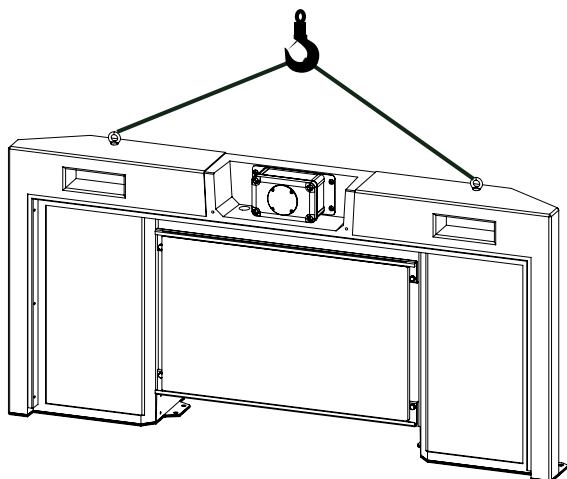
Master goal - Back view

Power (ground) cable. 230V
AC on seperated group
with ground fault circuit
interrupter

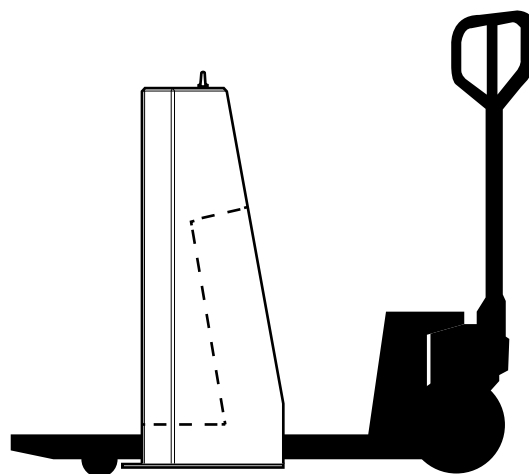
7 Mounting: Surface mount (pallettruck)

Important: If you want to move the Toro with a pallettruck, please make sure to remove the front panel and steel cover. See the assembly manual how to do this. This is a separate document.

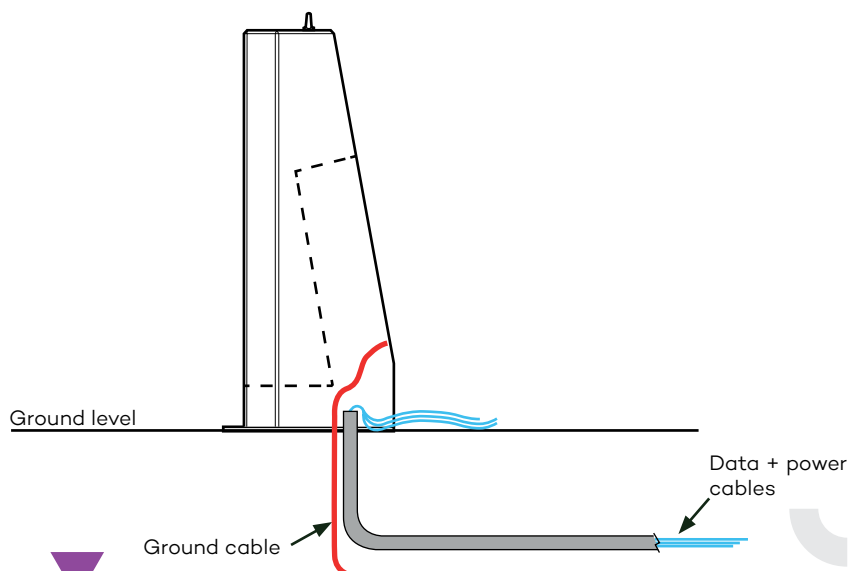
1. Lift the goal by the crane hooks out of the truck. We recommend using a forklift or a crane with forks. Only with use of a forklift beam, as shown in figure 1.



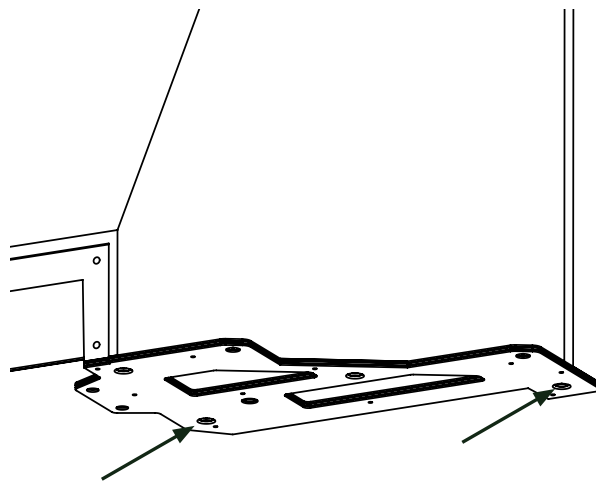
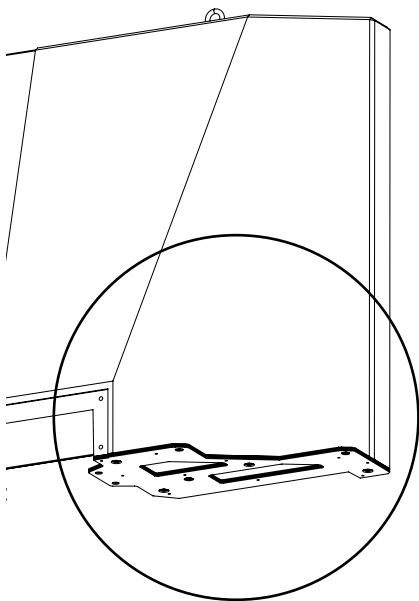
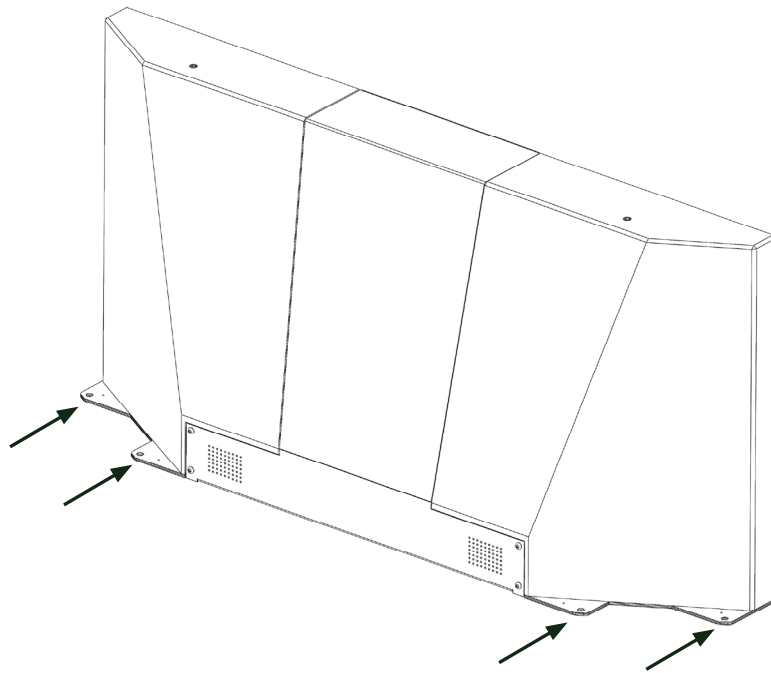
2. Place the goal slowly on a pallettruck. Be careful that the goal will not be damaged.



3. Place the goal at his position. Carefully lower above the cables, make sure no cables get stuck. Repeat these steps for the other goals.

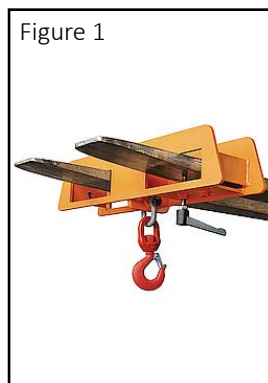
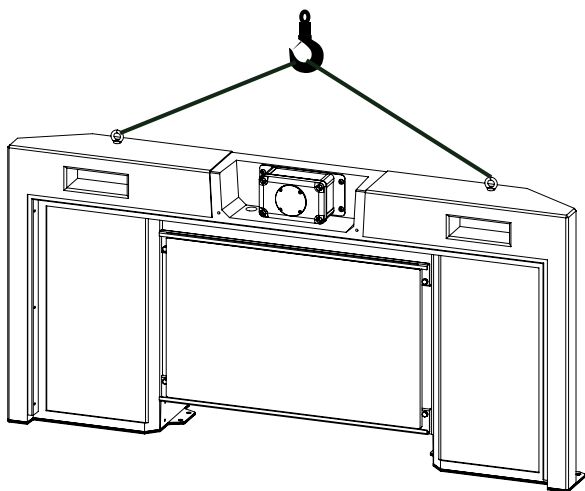


4. Secure the Toro to the ground with anchor bolts. We advice to use Hilti kit screw anchors HUS3-H 10x80 (not included in package).

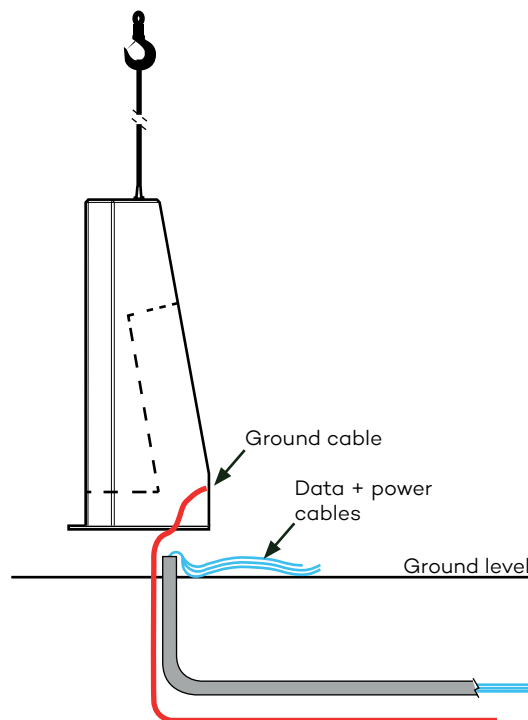


8 Mounting: Surface mount (forklift or crane)

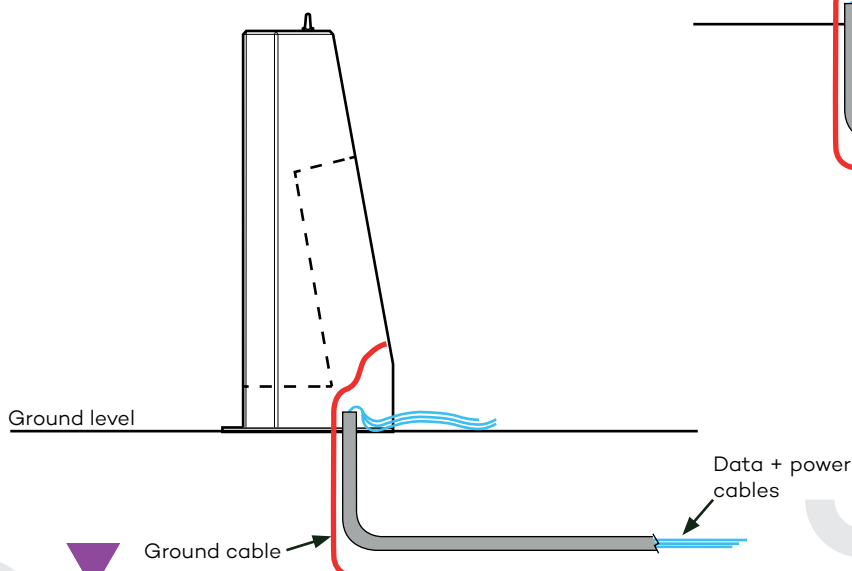
1. Lift the goal by the crane hooks out of the truck. We recommend using a forklift or a crane with forks. Only with use of a forklift beam, as shown in figure 1.



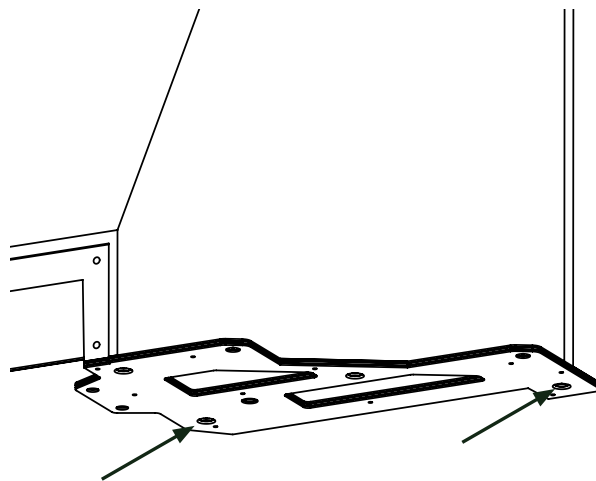
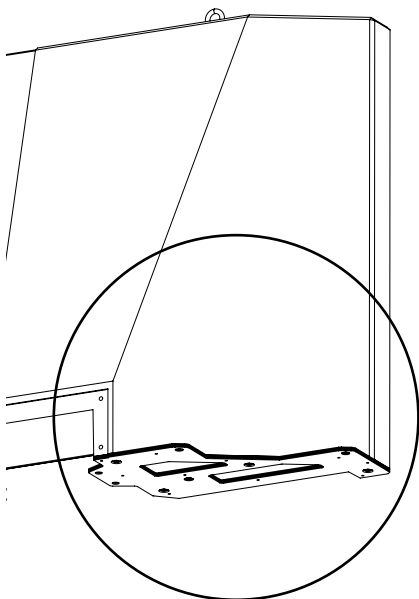
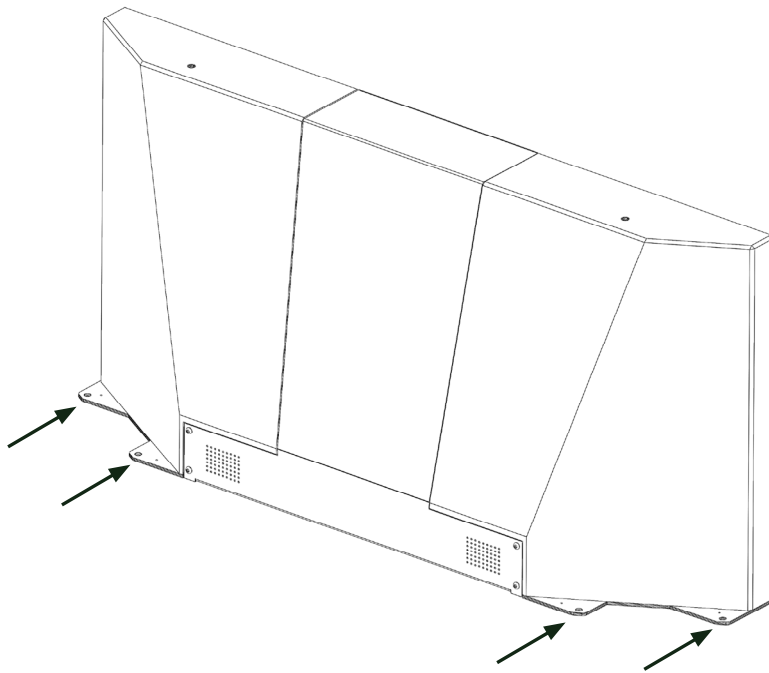
2. Place the goal very slowly in the right position above the ground.



3. Place the goal at his position. Carefully lower above the cables., make sure no cables get stuck. Repeat these steps for the other goals.

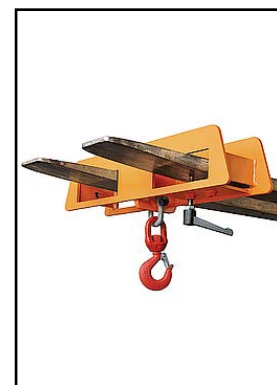
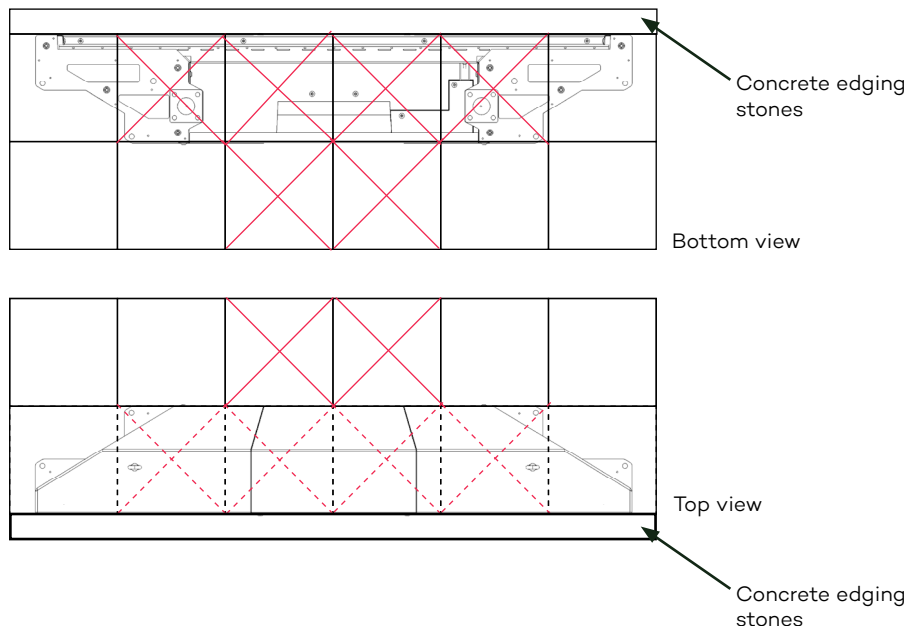


4. Secure the Toro to the ground with anchor bolts. We advice to use Hilti kit screw anchors HUS3-H 10x80 (not included in package).



9 Mounting: In ground

1. Remove the tiles as shown in the figure below. This figure is an example with tiles of 30x30 cm.



2. Dig the holes for each anchor of the four goals: 70cm deep and at least 100x20cm wide. Make sure the power connection is located in the right place for the master post.

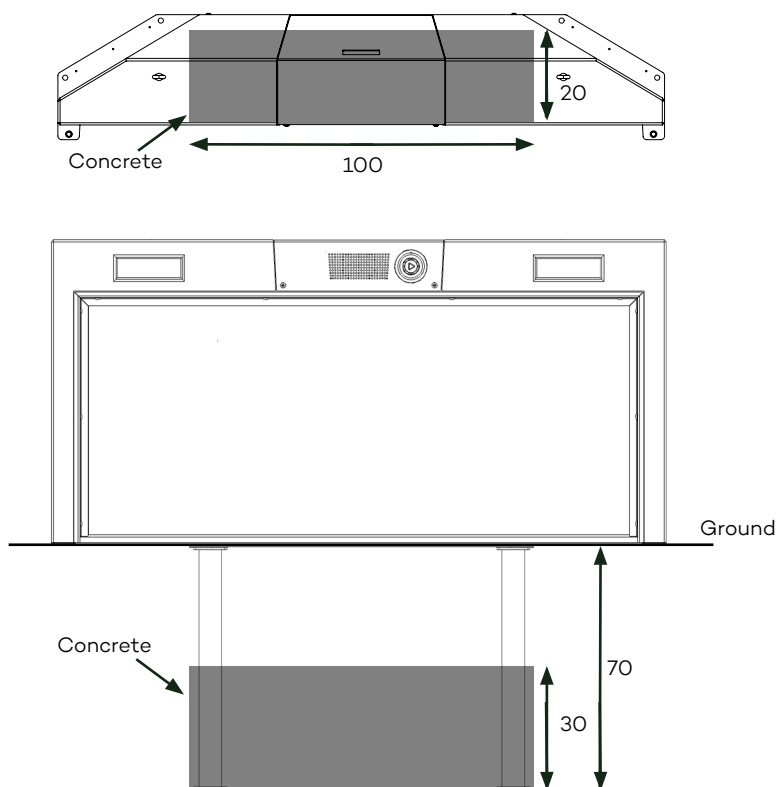
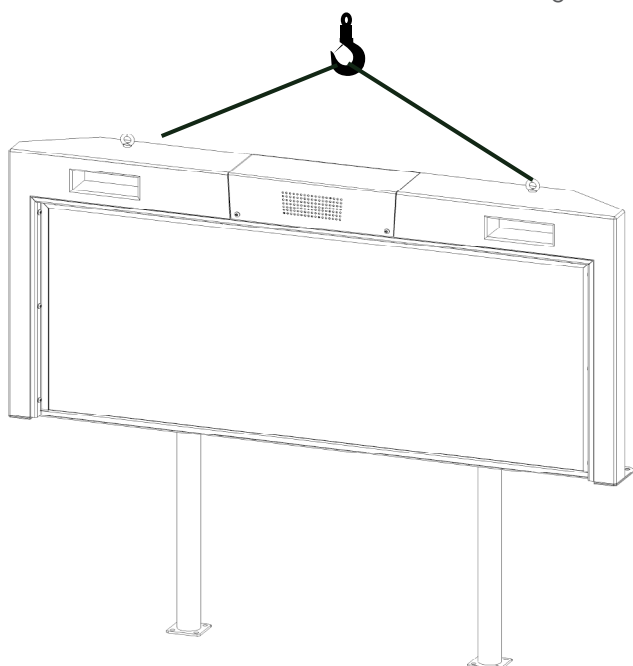
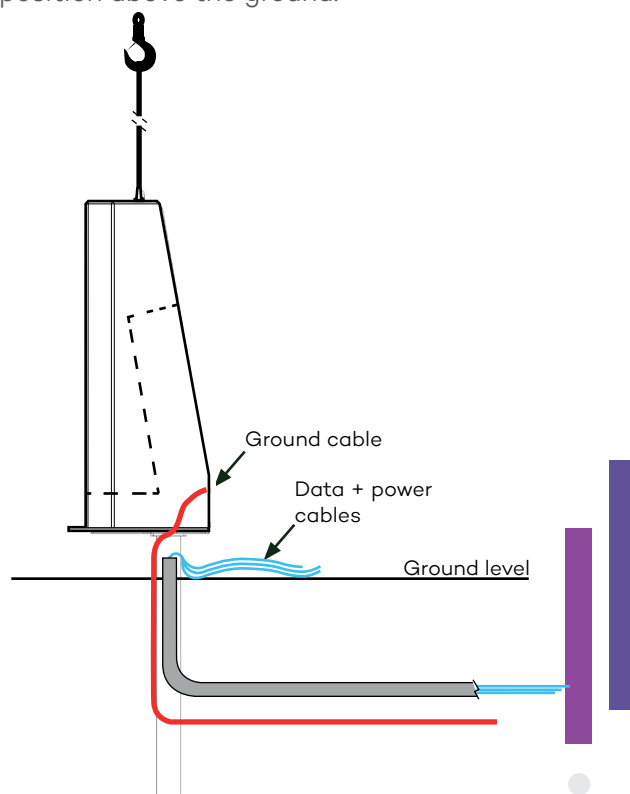


Figure 1

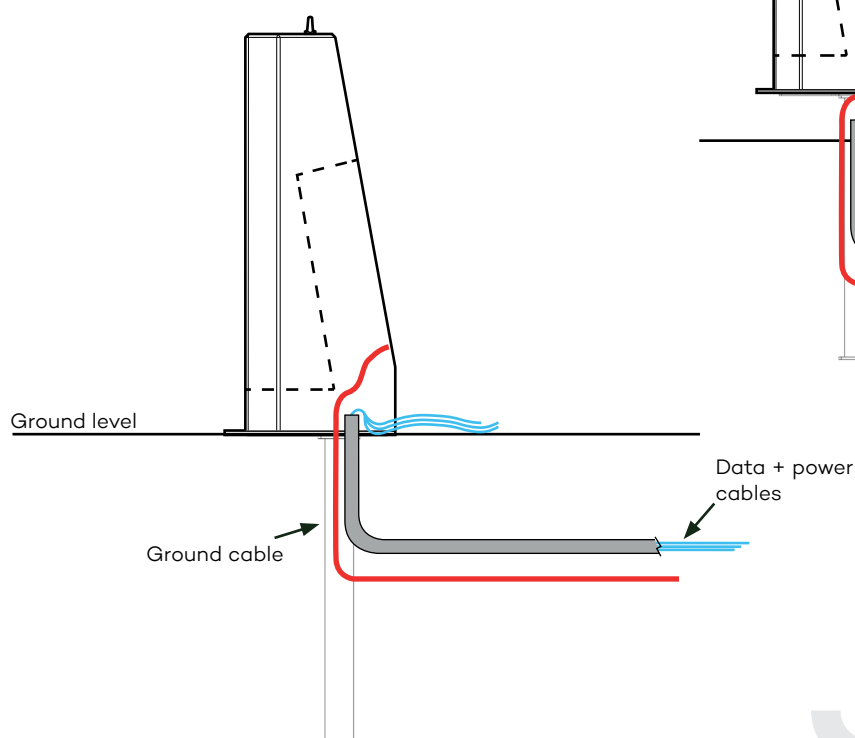
3. Lift the goal by the crane hooks out of the truck. We recommend using a forklift or a crane with forks. Only with use of a forklift beam, as shown in figure 1.



4. Fill the holes with at least 30cm concrete.
5. Place the goal very slowly in the right position above the ground.

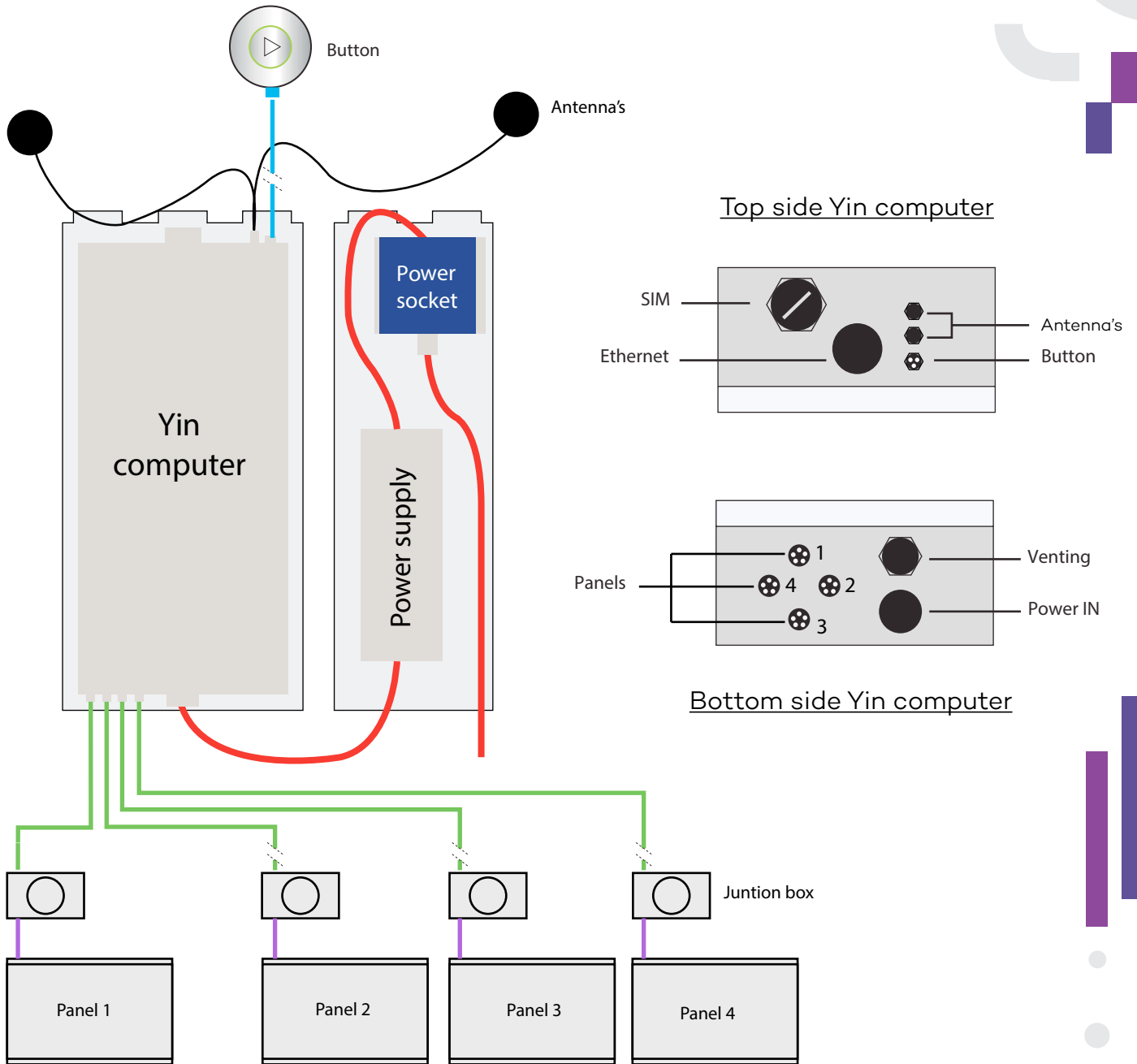


6. Place the goal at his position. Carefully lower above the cables., make sure no cables get stuck. Repeat these steps for the other goals.

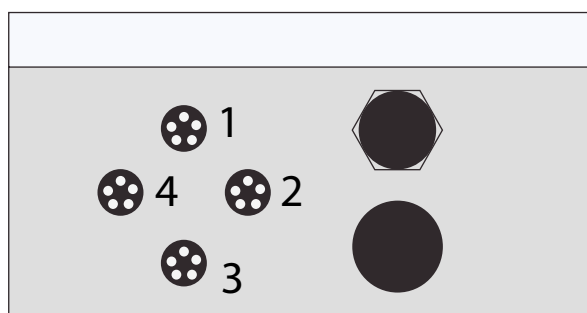
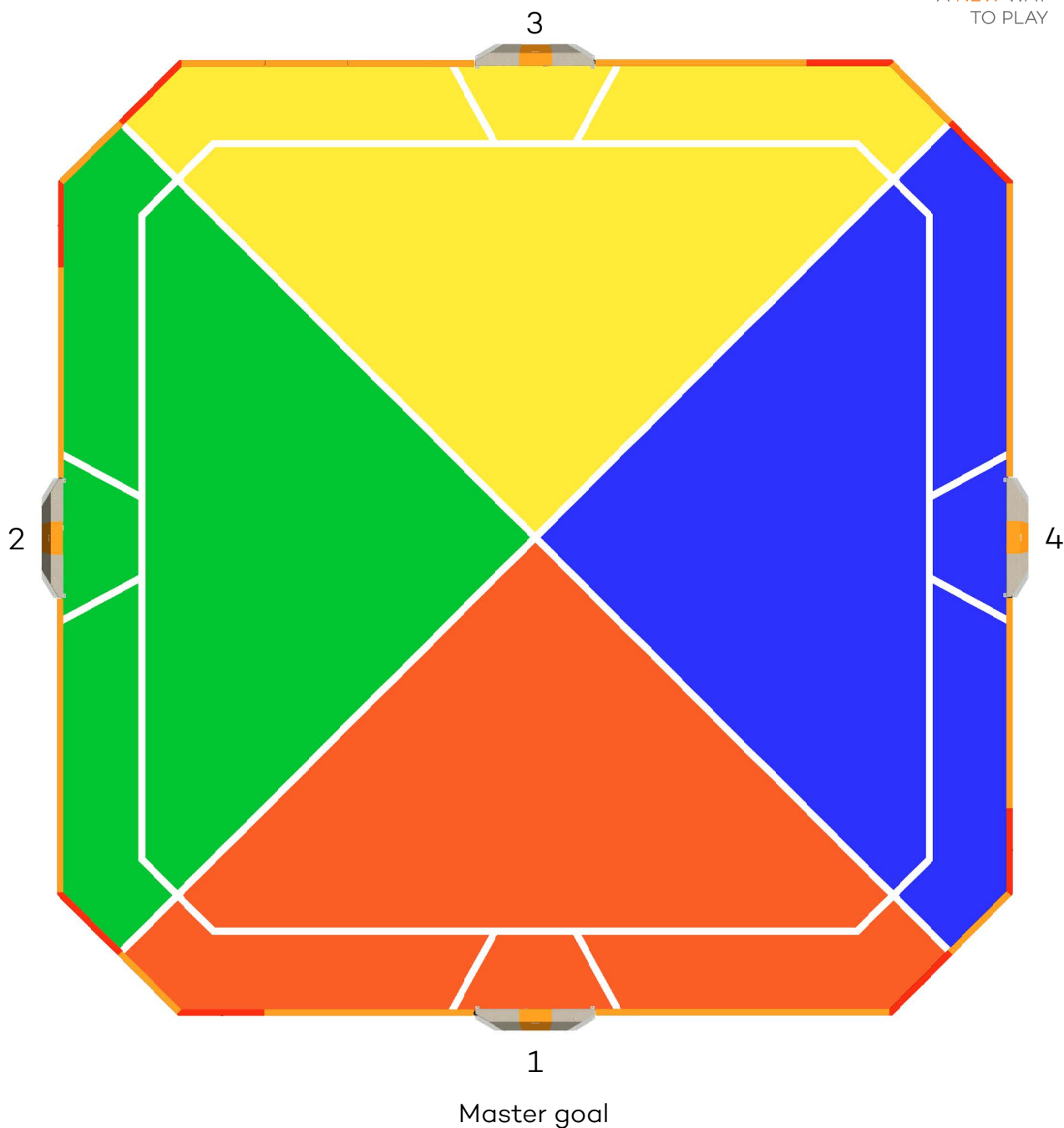


10 Electronics: Connections

1. Connect the power cable to the power socket. This must be done by a NEN-EN 1010 certified mechanic.
2. Connect all other cables from the antenna's and the junction boxes. See schematic view below as a check.
3. Put the plug from the power supply in the power socket.

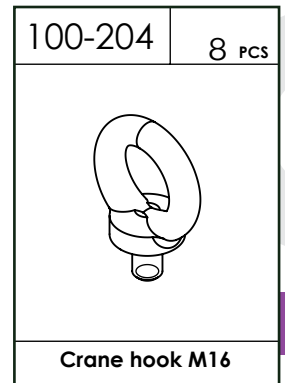
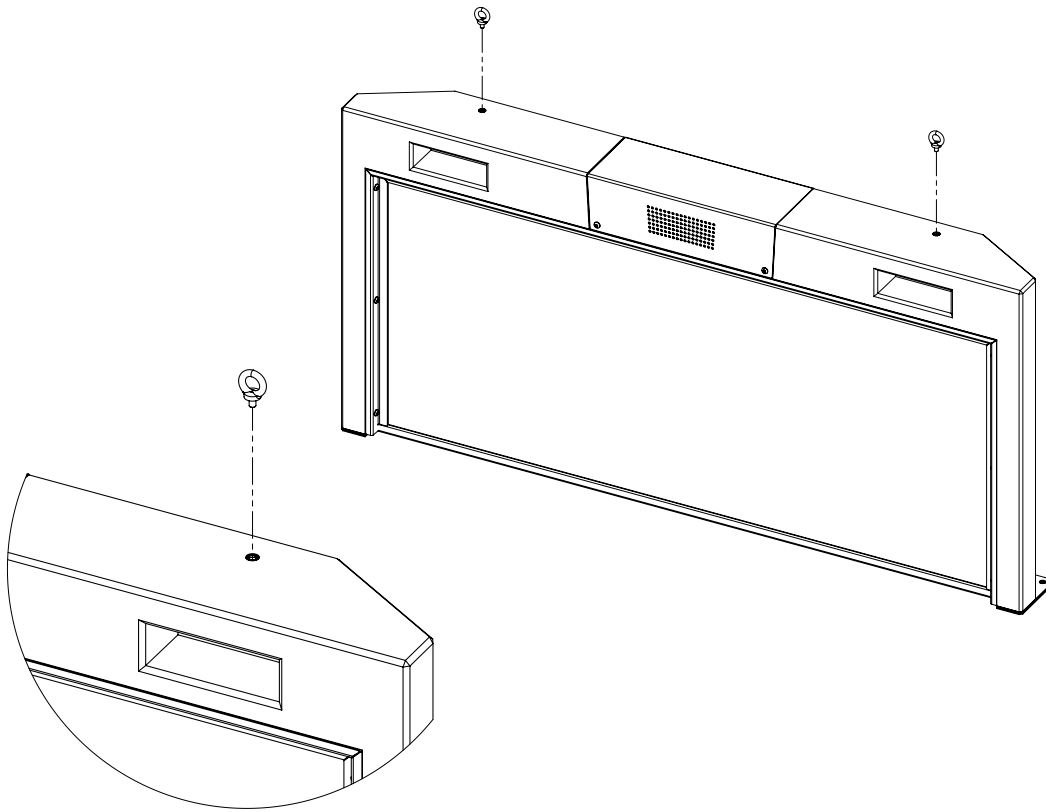


Important: The power supply must be assembled on a separate group with a 30mA ground fault circuit interrupter (GFCI), fused on 10A or 16A. For example with a protection box of the type; Melin Gerin, MG 10A-B 19791 DPNA VIGI 30MA.

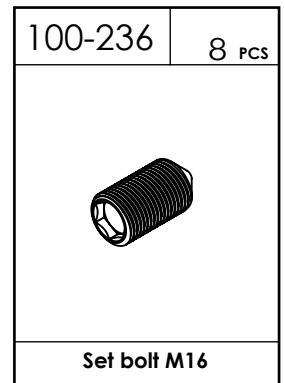
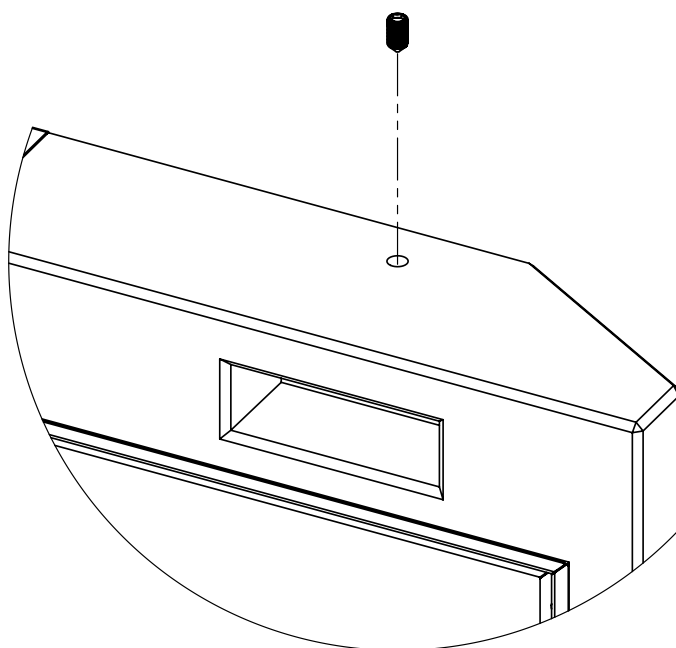


11 Removing crane hooks

1. Remove the crane hooks from the goals.



2. Place the set bolts into the holes with some adhesive.

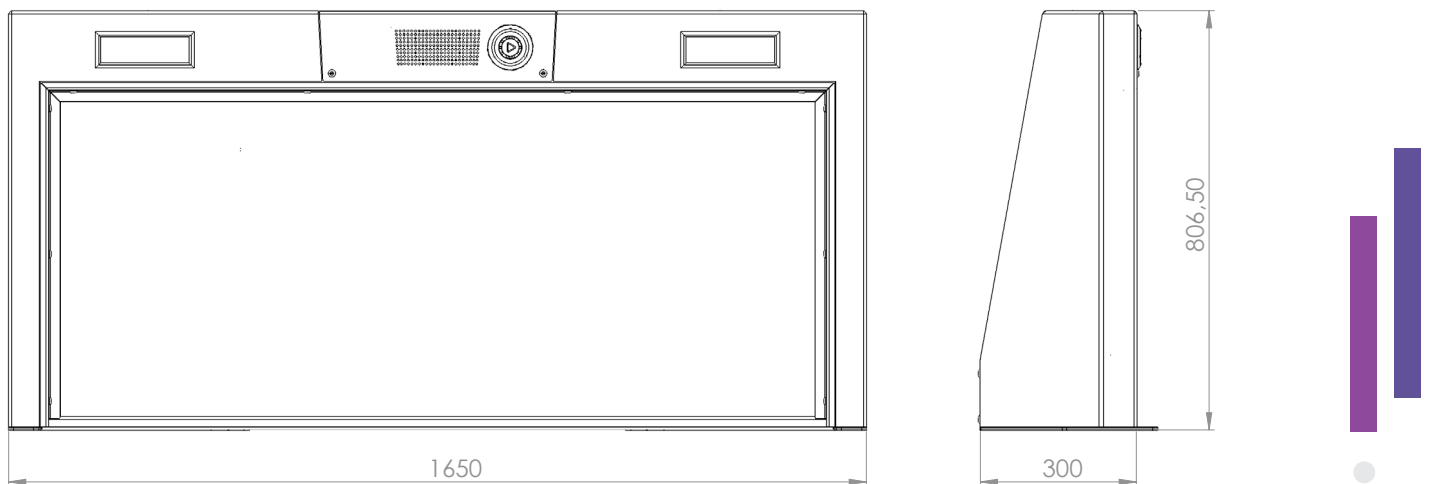


12 Technical information

General information

Weight Toro: Dimensions	± 475 Kg (± 1047 lbs) 1,65 x 0,3 x 0,8 m (L x B x H) (5,4 x 0,98 x 2,6 ft)
Electronics: Input Output	230 V 12 V DC/ 15 V DC
Internet connection	3G modem with data SIM card
Energy use In use In idle mode (standby) Sleep	52-167 W. (game dependent) Average 90 W. 36 W. 12 W.
Tested temperature of electronics* (*please keep power on at all times for the integrated active climate control to work)	-35 tot +70 °C (-31 to +158 °F). NB. Some electronics may switch off earlier within this range automatically to prevent damage. Ask us for extra temperature precautions outside this temperature range.

Dimensions



13 Warranty



The described periods of warranty apply to defects in structural strength and materials and manufacturing faults.

- 10 YEARS parts made of:
- stainless steel or aluminium
 - hot dip galvanized, powder coated steel
 - high pressure laminate (HPL)

- 5 YEARS parts made of:
- polyester
 - solid plastics

- 3 YEAR
- electrolytic galvanized steel
 - rubber or rubber coated
 - polyurethane

- 3 YEARS expiring warranty on all electronics*
- 1st year 100% warranty of part price
 - 2nd year 2/3rd warranty of part price
 - 3rd year 1/3 warranty of part price

Conditions of the warranty

The warranty covers the free delivery of (new or refurbished) replacement parts to the warehouse of the dealer. Defect parts must be replaced by parts delivered by Yalp. The replaced parts become property of Yalp and must be made available for further research.

Application of the warranty

The warranty is only applicable on the explicit condition that the product has been installed and maintained following the instructions of Yalp (product and installation manual). This includes that the product should have an online 3G connection through a local telecom provider. The warranty does not cover faults resulting from negligent handling, installation and maintenance, normal wear and tear, slight fading of colors, misuse, accident and modification with non Yalp-products.

Conditions and coverage

Wear and tear, vandalism and inappropriate use are not covered by the warranty. The warranty covers the delivery of replacement parts, not including the disassembly and installation. When a product is placed within 1 km of the sea shore, the warranty time will be reduced to 50% on all parts.

*All electronics:	Cables, inside product	Led panels
Computer	- CEE Blue socket	- SUTU LED panel (PC with electronics inside)
- YIN SONA UTP/3G 1	- Power cable CEE to Ecomate	- TORO LED panel (PC with electronics inside)
- YIN SUTU UTP/3G	- Speaker cable	
- YIN TORO UTP/3G	Accessories	
- YIN MEMO UTP/3G	- 3G modem	
- Main computer FONO	- 3G antennas	
Junction boxes	- Camera	
- Junction box Sutu, Toro,	- Safety transformer	
Memo, Fono	- Power supply	
Printed circuit boards	- Radar module	
- Fono interface PCB' s	- EAO push button	

14 Final remarks

Environment

Yalp is committed to sustainable business practices, values and standards are of paramount importance. The social commitment begins with our employees, but also in dealing with you. As a supplier of toys and sports products, we are aware of the social role that we play. We take responsibility on the core themes of:

ISO 9001:2008-certified quality management system

ISO 14001:2004-certified environmental management system.

Maintenance

- Panel maintenance

We recommend that you regularly (at least once a year) clean all panels by using a cotton or a strong paper cloth and a cleaning substance without diluent. You can use a glass cleaner from the local supermarket.

- Steel maintenance

We recommend that you regularly (at least once a year) clean the steel structure with a cotton or strong paper cloth and a cleaning substance without diluent.

- Fixation check

All screws and bolts need to be checked. Are they still fixed? If not, fix it! We recommend to check this at least once a year.

- Electronic check

You have to check all wires for cuttings and corrosion. When you see any damage that can cause any kind of dangerous situation, please contact the supplier. We recommend to check this at least once a year.

Service and support

When you are having problems and can't manage to solve them yourselves, please contact us.

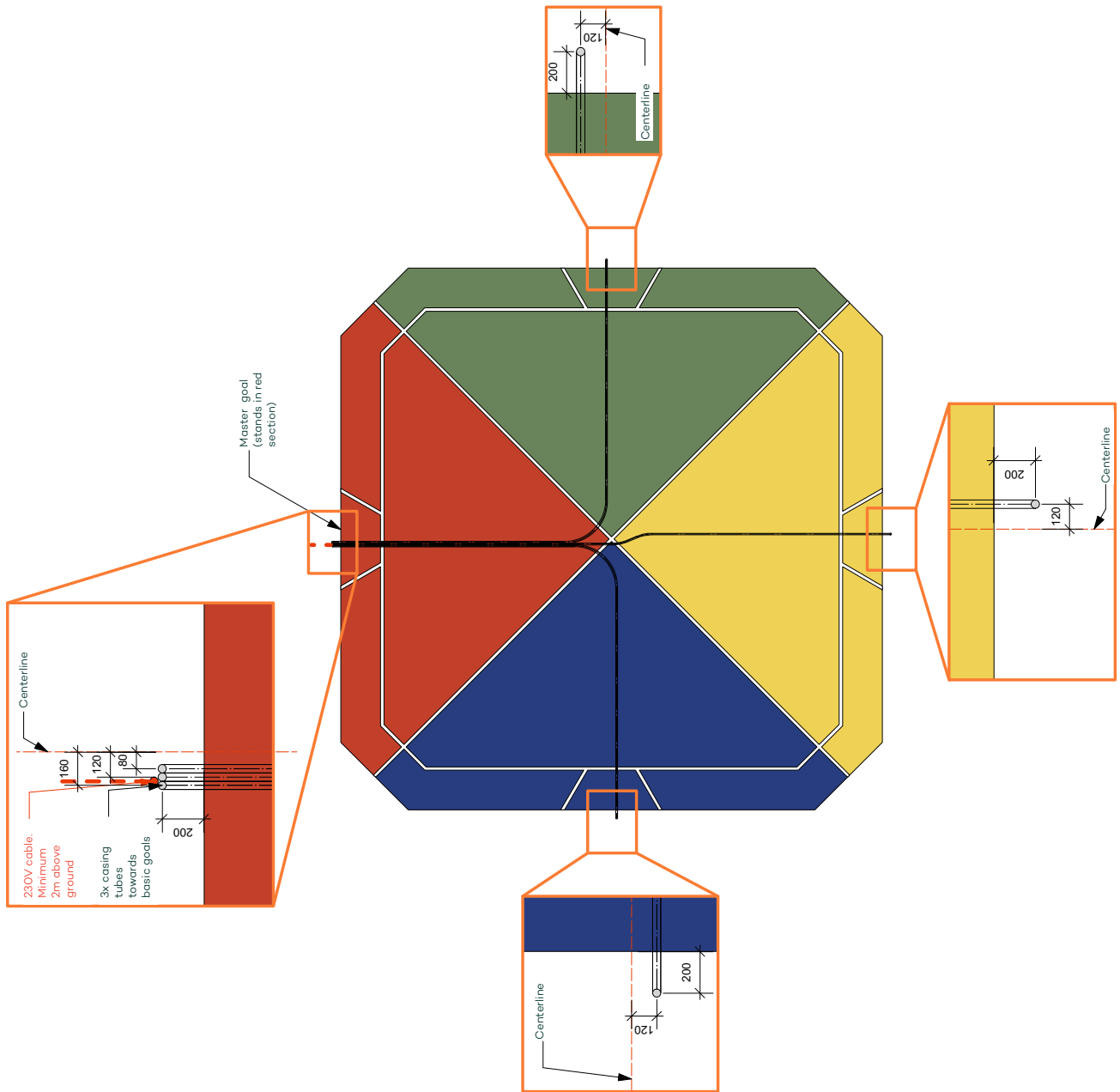
Wessel Hof

E; wessel.hof@yalp.nl

T; 0031 547 289 410

Have fun playing the Toro!

15 Appendix



- Focus points:
- place the casing tubes in the underground
 - Use casing tubes with a minimum diameter of 40mm
 - Preform the bends in corners with an minimum radius of 1m
 - Make sure the casing tubes extend above the ground, \pm 50mm
 - 230v ground cable with 2m lengt above ground.
 - dimensions of the field is measured between the boarding

Installation pipe sleeves and 230V

Toro	Paper formaat A3	Tekenschaal 1:100	
	Door : RB	Datum : 24-07-2015	
Datum : 24-07-2015		Revisie : 1.2	Nieuwenkampswaaien 12 7672 DE Goor tel: 0547-288410 fax: 0547-288411 info@yalp.nl www.yalp.nl

16 Versions

Version/Date:	Adjustments
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v1.6/16-12-2015	-Split the Installation manual in 'Assembly' and "Installation" -Added chapter 7, 8 and 9
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