1. Product Name

ROMPA® Interactive Projection

2. Product Code

20063

3. Colour

Not applicable

4. Brief Description

An incredible multimedia visual display system that projects amazing interactive special effects and activities directly onto an 'interactive floor'. Users control dynamic interactive displays with simple gestures and body movement. Movement is rewarded with engaging experiences and captivating images.
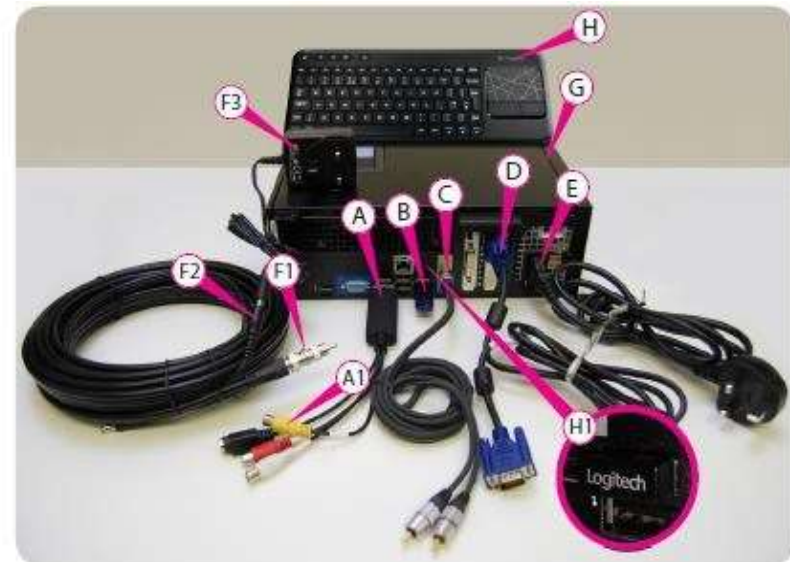
5. Contents

1 x PC with keyboard
1 x Projector with Remote Control
1 x Camera Tracking System
1 x Vinyl Floor (which can be fitted to the floor or left loose)
1 x VGA cable to connect PC to the projector (usually 5 metres)

Components list

A: Capture Card (pulls the camera video signal into the PC)

B: USB Software Licensing Key

C: Audio Cable - 3.5mm to 3.5mm Stereo or 3.5mm to Phono (as shown)

D: VGA Cable (carries image from PC to Projector)

E: IEC Cable (PC Power Cable)

F1: BNC Cable with RCA Composite Connector (Carries Camera Video Signal to PC and plugs into the yellow connector on the 'A: Capture Card')

F2: 2.1mm DC Plug Connector (Camera Power)

F3: 12V DC Power Adaptor (Camera Power)

G: PC

H: Wireless Keyboard

H1: Wireless Keyboard Dongle

I: Projector

J: Camera

K: Mirror

L: IEC Cable (Projector Power)

Note
Components, shown at the time of printing, may vary in make and model of the technology used technology available at the time. However, they are essentially the same components, with the exception of some minor difference, will work in the same way.

6. Snoezelen® Stimulations

- Visual

7. Best Use

Use in a darkened environment. Use with props to enhance your favourite themes e.g. brushes to sweep away leaves and so on.

8. Compatible ROMPA® Products

Not applicable

9. Starting Up

There are no short cuts to setting this system up carefully and thoroughly.

10. Detailed Description

Seeing really is believing … and truly delighting! Taking interactivity to a new level!

A virtual wonderland! Making otherwise impossible experiences a reality …

Brush virtual leaves aside with a sweep of your foot …. step through water to create ripples and see fish move out of your way … set off fireworks with one step!

An incredible multimedia visual display system that projects amazing interactive special effects and activities directly onto an 'interactive floor'. Users control dynamic interactive displays with simple gestures and body movement on the vinyl floor mat. Movement is rewarded with engaging experiences and captivating images.

Cutting-edge immersive technology to enable clients, regardless of ability, to control and interact independently with a moving image and explore their own creativity and imagination.

With nothing to actually touch, this system is safe, requires no cleaning and is perfect for places where infection control is an issue. As a non-contact resource, once installed, it is also perfect for those with challenging behaviours.

Multiple easy-to-customise templates are included, with further effects available to build your own 'library'. The ROMPA® Interactive Projection can be permanently installed by ROMPA® in your Snoezelen® room.

OPERATION

1.   Press the power button on the PC.

2.   Using the remote control, turn the Projector on.

3.   Switch the keyboard on. Remember to switch this off after use to preserve battery life.

4.   When the system starts up, you will see the Magic Carpet control panel:

If your system does not automatically launch the Magic Carpet software and you only see the Desktop, locate the software icon and double-click it:

Note: depending on how your system is configured, it may launch straight into an App. If this is the case, press escape once to get back to the control panel.   If the shortcut icon on the Desktop gets deleted / disappears, a new shortcut can be created by navigating to: C:\Program Files\Magic Carpet\
Right click on Magic Carpet.exe and *Send To> Desktop (Create Shortcut).*

If you see only a blue screen with "CHECK THE INPUT TERMINAL", locate the Projector Remote.

Look for the section that says "Computer". Press "1" once and wait for a few seconds.

If this doesn't work, try pressing "2" and wait for a few seconds.

5.   Use the keyboard to control the system. The trackpad on the right of the device works in the same way as a laptop track pad with left and right mouse buttons underneath.

6.   To launch an App, navigate to the Menu on the left of the Control Panel:

Select an App by clicking once on it with the Left mouse button. Navigate to the right and click the Start button ONCE and the chosen App will run. Full lists of apps can be found later in these instructions.

To exit an App, press the Esc key ONCE to return to the Control Panel:

 Note: Pressing the Esc key more than once when exiting an App will close the   software. If this happens, run the software again via the Desktop Shortcut.

 To shut the system down

 The system requires a standard Windows operating system. Older systems run on Windows XP. More recent systems run on Windows XP, more recent systems   require Windows 7 / Windows 8. To shut down, click Exit on the Control Panel:

Navigate to the Start button at the bottom left of the display:

Click Shut Down:

Make sure the PC has shut down.

Using the Projector Remote, press OFF - <u>ONCE</u>:

Press once to enter shut down mode and once again to confirm shut down. You could also press 'Enter' as directed – either way is fine.
Make sure the PC has shut down and the Projector has cooled down sufficiently before turning the mains power off. The power light on the Projector will flash orange during the shut down sequence and show a continuous orange light when completely shut down.

Magic Carpet Software

Control Panel

A: Apps Menu

B: Menu / Play Options (Manual Play is standard)

C: Auto start with windows

D: Start - to launch an app

E: Video Analysis - launches the video analysis window

F: Hide - minimise to the taskbar

G: Help Documentation - launches this Manual!
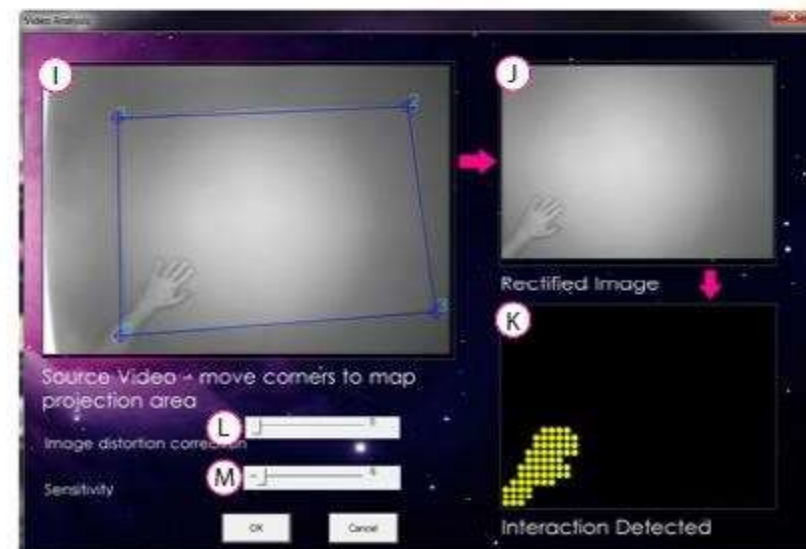
H: Exit - closes software

Video Analysis

I: Source Video - what the camera sees.

J: Rectified Image - area inside the blue calibration lines

K: Interaction Detected - displays users movements

L: Image Distortion Correction - not usually required

M: Sensitivity - between 5-10 is optimum

11. <u>Safety</u>

- Always supervise the use of this product.

12. <u>Technical Specification</u>

Projector: 5000 hours lamp life

Mat:
- The size of the mat the size is determined by the ceiling height and projector lens throw ratio.
- The standard projector throw is 1.3:1 – that means that you can work out the image size by dividing the ceiling height by 1.3
- For example: if a ceiling height is 2.4M – you would simply punch 2.4/1.3 in your calculator and get 1.846mm as the answer: this is the width of the image. To get the height of the image you just multiply the previous answer by 0.75 – which in this example will provide an image height of 1.384mm

Apps:

1 Poppies	29 Ice
2 Real Water	30 Lava
3 Move Image	31 Flower Power
4 Bubbles	32 Glowing Circles
5 Football	33 Smoke
6 Leaves	34 Circle
7 Fog	35 Star
8 Space Flame	36 Square
9 Rocket	37 Rectangle
10 Earth	38 Tropical
11 Asteroid	39 Magic Stars
12 Smiley Faces	40 Sad/Happy
13 Sensory Circles	41 Animals
14 Spooky Eyes	42 Sweets
15 Particle Explosion	43 Rotate Animals
16 Piano	44 Flower Paint
17 Penalty Shootout	45 Earth Spin
18 Mr Frosty	46 Window Wipe
19 Magic Bubbles	47 Monet
20 Magic Mist	48 Autumn
21 Fish Pond	49 Volcano
22 Graffiti	50 Farm
23 Star Wall	51 Redneck
24 Star Scatter	52 Witch
25 Video Flip	53 Snow Window
26 Sunflower	54 Chameleon Wipe
27 Toadstools	55 Water Petals
28 little Green Men	56 Spring Flower

13. Installation

1. The kit supplied is intended to accommodate the safe installation of the projection system on many of the ceiling types which might be found including the 600 x 600 tee bar suspension system.

2. **Suspended ceilings**: the M8 x 100 bolt is attached to the corner of the tile and the connector clip to extend the threaded rod to the structure above.

3. The tee nut accepts the M8 threaded rod and is screwed to the structure using the 30mm x 8s screws. The image below on the right shows the general arrangement above the ceiling with the metal tile supported at the four corners.
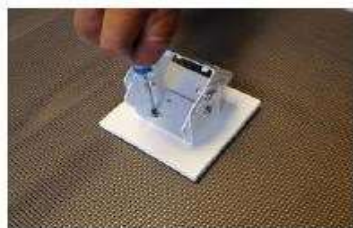
4. **RSJ or steel section**: an alternative method of suspending the tile from an RSJ or steel section is by using the 250mm angles to clamp the upper and lower surfaces of the structural member.

5. **Plaster ceiling**: when suspending the tile from a plaster ceiling first assemble the 650mm Z bearers on to the tile with the M8 x 16 button head bolts. This will ensure the beamers are parallel and square when fixed to the ceiling (image below in the middle). After fixing the bearers to the structural members in the ceiling the tile can be unbolted and removed from the bearers which remain (image below on the right).

Screw the mirror centrally to the tilting mirror bracket using the short screws provided with the mirror ensuring that they cannot project into the mirror (see image below left). Take care to ensure that no finger prints are put onto the mirror face. Attach the Z bars to the projector using the M4 machine screws (see image below right).

Position the projector onto the ceiling tile and attach using the M5 machine screws.   Position the mirror directly in front of the projector lens and secure through the slots in the ceiling tile. Locate the camera in a suitable position looking down and forward of the projector.

The tile can now be installed in a suspended ceiling supported from the structure by the methods shown above.

The PC is connected to the projector by VGA cable only.

The PC needs to be placed where it can be accessed. It comes with a wall mountable PC cabinet for it to be placed in. Location of any power sockets is important to ensure that the PC and its components can be powered. ROMPA usually place the computer cabinet near the interactive floor area at an accessible level. The projector and computer are always wired up on a constant mains power supply (usually using the fish key switch).

The keyboard is wireless and ideally should be used next to the interactive floor projection. It should operate effectively in the same room as the projection but the signal won't work well through walls or obstructions.

14. <u>Care and Maintenance</u>

1.   Switch the components off after use.

15. <u>Troubleshooting</u>

Problem: **difficulty turning the system ON**
• Ensure the mains power supply to each component is switched on
• Check the Projector Remote and the keyboard batteries
• Carefully check the power connection at the back of the PC, ensuring that you do not dislodge any other cables or connectors in the process.

Problem: **an App doesn't launch or a different one than selected appears**
• Make sure 'Manual Play' is selected and try again
• If the problem persists, contact ROMPA

Problem: **the PC will not start up**
• Make sure the PC is plugged in and powered on
• Try using another IEC cable to rule out a blown fuse
• Check the main circuitry – a circuit breaker may have tripped and may need resetting ☐ If the problem persists, contact ROMPA

Problem: **It seems like the camera is not working**
• The physical connection to the camera needs checking – make sure BNC is secure at the projector and the PC end.
• The video codec may have a problem (telephone or remote assistance may be needed, please call ROMPA)
• Faulty 12V PSU to Power Camera (check LED array is glowing in the face of the camera)
• Faulty camera

Troubleshooting Guide

The software won't launch, or you get the error message "Magic Carpet cannot find the camera. Please ensure that the video capture device is correctly installed." (Img16)

You have turned the system on and the Magic Carpet software will not run - it is more than likely that there is a problem with the Camera. The software requires the Camera tracking system to be active in order for it to open. If the Capture Card has been disconnected or the power is off, it will not be detected. With the system powered on, follow these steps until the problem is resolved;

- Check the status of the Camera by looking at the LED Array (Img 17). If it is lit red, this indicates that the Camera has power. If not, then check the Camera's power supply is connected properly (Img 18), plugged into the mains power supply and switched on. Once the connections are reinstated, try reopening the software.
- If the Camera appears to be powered, make sure the Capture Card is correctly plugged into a USB port on the PC. Check that the RCA connection into the capture card is sound (Img19).
- Check that the Software Licensing Dongle is plugged into a USB port on the PC. If there is an issue with the dongle you will see an error stating 'System cannot find USB Dongle'

Img 16

Img 17

Img 18

Img 19

The keyboard has lost connection

The wireless keyboards supplied with the Magic Carpet system are connected via Bluetooth technology. As well as the keyboard unit, there is a USB pairing device plugged into the PC. The procedure to establish a connection between the PC and keyboard (pair) depends on what model you have. Before attempting to pair your keyboard, check the batteries.

Model A (img 20) - has "(Fn+) ID" as pictured

- Press the button on the dongle (Img23), if fitted with a green light, it will begin to flash.
- With your left hand, hold down the Fn key (bottom left of the keys).
- While still holding Fn down, with your right hand, hold down ID for 2 seconds (top left above keys).

Model B (Img 21) - has "ID" only as pictured

- Press the button on the dongle (Img 23), if fitted with a green light, it will begin to flash.
- Hold down ID for 2 seconds

Model C (img 22) - uses a track pad in place of the roller ball mouse

- Plug the USB dongle into the PC
- Switch the keyboard on using the switch at the back (Img 22)
- There is no pairing process required with this keyboard - it happens automatically!
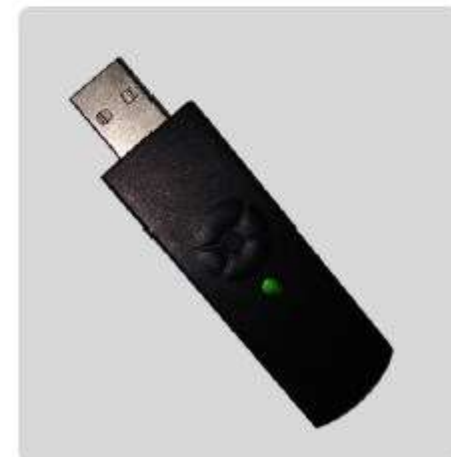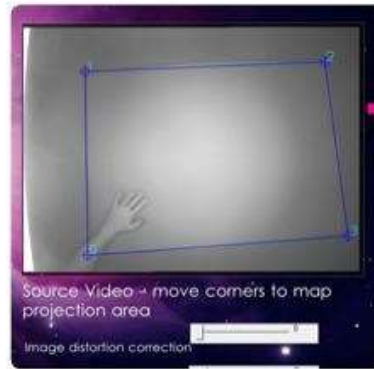

Img 20

Img 21

Img 22

Img 23

The Magic Carpet has no interaction, is unresponsive or responds erratically...

Very occasionally the system can become unresponsive or respond erratically for reasons such as, too much ambient light, a Camera connection problem or incorrect sensitivity settings.

- First check that there is no direct sunlight falling on the projection and that the general lighting in the room is low.
- Open Video Analysis and check the status of the Camera. If you do not see a camera image in Source Video then it is likely there is a connection issue with the Camera (camera image should appear as per Img 24). In this case, follow the steps for "The software won't launch" on page 10.
- If Camera feed is detected in Video Analysis, draw your attention to the Source Video window at the top left. Make sure that points 0-3 are correctly mapped around the projection area and in the correct order (Img 24). For example; point "0" should be positioned at the bottom left of the projection. Point "1" at the top left, point "2" top right and point "3" bottom right.
- Check the Sensitivity setting is set between 5 and 10. This value is correct for almost all sensory room situations. Adjust the settings until you get defined feedback from your movements in the Interaction Detected window (Img 25)
- Make sure that the Image Distortion Correction is set to 0
- If you see intermittent camera feed or the camera feed appears distorted or "noisy", check the RCA connection into the Capture Card. Especially if your system has an RCA connection directly into an onboard Capture Card (PCI - pre 2012 systems only); try removing and replacing the RCA connector or try gently turning it until the image improves. (Img 26 shows an onboard / PCI capture card).

Img 24

Img 25

Img 26

Further copies of these instructions can be downloaded at www.rompa.com We hope you find our instructions invaluable. If you have any suggestions for improving them further your comments will be greatly received – please contact us at producthelp@rompa.com