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instrumentation and software for research

VIDEO ZERO MAZE

ASSEMBLY INSTRUCTIONS

DOC-014
Rev. 1.3

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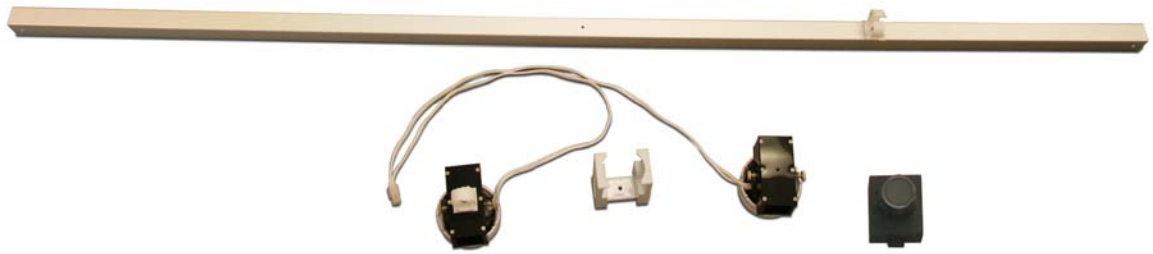
ASSEMBLY INSTRUCTIONS

The Video Zero Maze (VZM) has been separated into basic components for shipping purposes. Begin by unpacking all components of the maze. Locate the maze base and situate it in the location where testing will be performed. Be sure that the area is evenly lit and the maze base is centered on the blue plastic mat. The mat should be oriented so that it protrudes from under the open sections of the maze.

Camera Mount and Lights

The camera mount and lights must be placed on the crossbeam prior to assembling the maze. Locate the crossbeam, camera mounting bracket, lights, and firewire camera, shown in Figure 1.

Figure 1 - Crossbeam, Lights, Camera Brackets and Camera



1. Notice that the crossbeam has a cable clamp mounted on it. This is the top of the crossbeam.
2. Slide the camera bracket onto the crossbeam so that hole in the top center of the crossbeam is aligned with the hole in the top of the camera bracket. Fix the camera bracket in place using the included thumbscrew.
3. Notice that one of the lights has a cable clamp mounted on the top of it, and the other does not. Slide the light without the clamp onto the end of the crossbeam that does not have a clamp on it, as shown in Figure 2. Slide the light onto the crossbeam until it hits the camera bracket.

Figure 2 - Camera Bracket and Lights Mounted on Crossbeam

4. Slide the other light onto the other end of the crossbeam.
5. Orient the lights as desired on the crossbeam and fix in place using the thumbscrews.
6. Install the Firewire camera into the camera bracket and fix in place using the included thumbscrew, as shown in Figure 3.

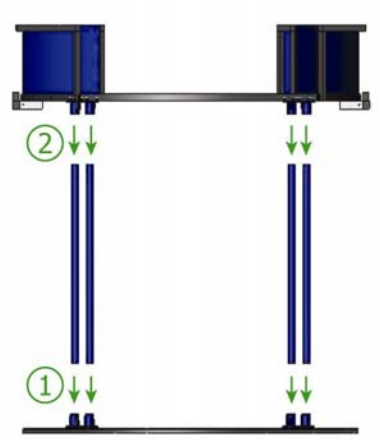
Figure 3 - Camera in Bracket

7. Connect the light cable to the connector between the lights.

Maze Hardware

1. With the base in the desired location (the assembled maze is large and difficult to relocate), install all four legs as shown in Figure 4.
2. Place the Zero Maze runway on top of the legs, as shown in Figure 4.

Figure 4 - Maze Base Assembly

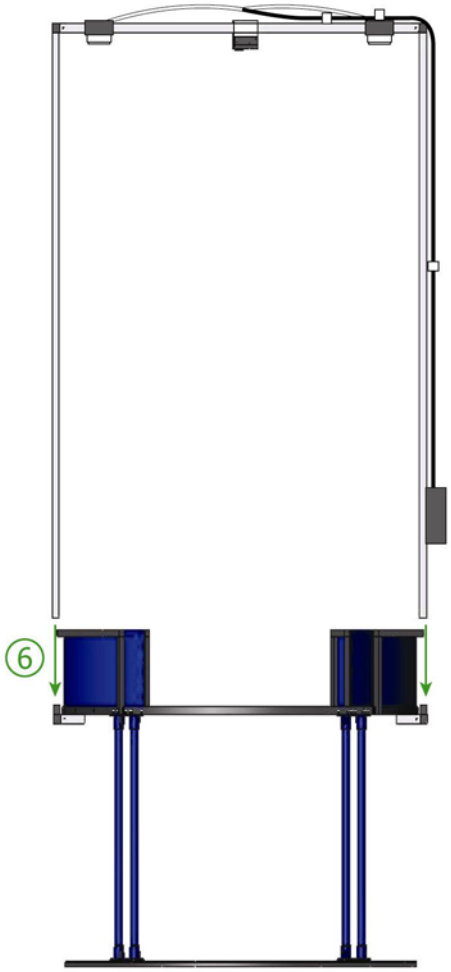


3. Locate the two uprights. Slide the uprights into the ends of the crossbeam. One of the uprights has a cable clamp, and should be oriented as shown in Figure 5.
4. Secure the uprights in place using the supplied pins.
5. Connect the light cable to the **To Lights** connector on the bottom of the ENV-560-L, which is mounted on the maze upright.

Figure 5 – Connecting the Uprights to the Crossbeam

6. Attach the uprights to the maze base by lowering the uprights onto the elbows that protrude from each side of the base. Refer to Figure 6.

Figure 6 – Attaching the Uprights to the Maze Base



8. Using the included 12 VDC adapter, connector the **+12V** connector on the bottom of the ENV-560-L to a standard wall outlet.

9. Using the included Firewire cable connect the Firewire camera to the Firewire hub, as shown in Figure 7.

Figure 7 - Firewire Hub

10. Using the included Firewire cable (gray cable with red connectors), connect the Firewire hub to any available Firewire port on the computer.
11. Connect the supplied power cord to the Firewire hub and plug into a standard wall outlet.
12. Now that the Video Zero Maze has been assembled, refer to the Video Tracking Interface User's Manual supplied with the equipment for further instruction.