## Risk Assessment – The Perfect Little Company Slips, Trips, Falls & Covid-19

What Are The Hazards	Who Might Be Harmed And How?	What Are You Already Doing?	What Further Action is Necessary?	Risk H M L	Action By Whom?	Action By When?	Completed
Example Hazards			sk management of slips, trips, falls and the curre Assessment, moving items across to "What furth				
Areas to be cleaned by Robotic Vacuum Cleaners	To be agreed between TPLC and their customer.						
Design	Employees and visitors Personal Injury	The Robotic Vacuum Cleaners are designed in yellow to maximise visibility. They have no wires to avoid causing any obstructions.  If RVC has to stop operating or becomes stuck, they will ask via their inbuilt speaker to be put in a safe place and will stay put until a cleaning employee removes them and restarts them.  The Hive trolley is also yellow in design with heavy duty rotating wheels that make it easy and light to push/pull when fully loaded.	None	L			
Training	Employees and visitors Personal Injury	Employees trained in principles of risk management and duties under HSAWA     Employees instructed to clean as they work     Bins / receptacles provided for waste material     Use of bins / receptacles are monitored     Slip, trip and fall hazards are immediately isolated on discovery     Slip, trip and fall hazards that cannot be isolated or removed are immediately reported to management     Cleaning staff are aware of moving objects when robots are working in various areas	Caution signs to be supplied by TPLC	M	TPLC	Before deployment	

Cleaning	Employees and visitors Personal Injury	Suitable and timely cleaning schedules in place mainly outside of business hours or at times of low activity     Caution signs are in place on building entry points     PPE (in the form of gloves and masks - as minimum) will be used when emptying the dustbox and performing general maintenance on RVCs     Hands should be washed for a minimum of 20 seconds with soap and water prior and after handling any of the equipment     Ensure the dustbox is emptied carefully and in a well ventilated area     Wipe down RVCs after use	Caution signs to be supplied by TPLC  PPE, anti-bac & hand washing facilities to be supplied by customer.	M	TPLC	Daily – before / after cleaning period.  Daily – before / after cleaning period.	
Infection	Employees using the RVs	There is a risk of transmission of COVID-19 from surfaces (source WHO). The risk of coronavirus (COVID-19) infection depends on many factors, including:  the type of surface contaminated the amount of virus shed from the individual the time the individual spent in the setting the time since the individual was last in the setting  Surfaces and belongings can be contaminated with COVID-19 when people who are infectious cough or sneeze or touch them. Transmission of COVID-19 can occur when someone else then touches the contaminated surface or item. The person may become infected if they touch their nose, eyes or mouth with a contaminated hand or object. Increased frequency of cleaning of general room surfaces reduces the presence of the virus and the risk of contact.  The infection risk from a COVID-19 contaminated environment decreases over time. It is not yet clear at what point there is no risk from the virus, however, studies suggest that, in nonhealthcare settings, the risk of residual infectious virus is likely to be significantly reduced after 48 hours.	In order to reduce the risk of contamination, hands should be washed both before and after touching the RVC.	M	Customer	Before / after cleaning period.	
Lighting	Employees and visitors Personal Injury	Suitable and sufficient lighting is provided to work areas and traffic routes to make any the RVCs visible at all times.	All lights in each room to be switched on.	L	Cleaning Employees	Daily - before / during cleaning period.	

Condensation / Humidity	Employees and visitors Personal Injury	<ul> <li>Suitable flooring or surface coating applied to areas identified as having condensation / humidity issues.</li> <li>Sufficient ventilation is provided and identified problem areas monitored to ensure quick resolution.</li> <li>Problem areas isolated or signed as appropriate.</li> </ul>	Any ongoing problems with condensation and humidity should be professionally addressed to eliminate the problem but unless it develops into a pool of water, this will not cause an issue for the RVCs who will continue to operate as normal	L	Customer		
Adverse Weather	Employees and visitors Personal Injury	Suitable non-slip mats available to remove excess wet brought in on shoes.     Storage for umbrellas or wet coats etc is provided near the entrance of the building to avoid excess wet being trailed through the building causing a slip hazard     Paper towel is accessible for any excess wet to be cleared up and wet floor signs are available for use.     Robots must not be operated outside	Excess wet on floors should be cleared up prior to the cleaning period if noticed but unless it develops into a pool of water this will not cause an issue for the RVCs who will continue to operate as normal	L	Cleaning Employees	Daily – before / during cleaning period.	
Water Ingress	Employees and visitors Personal Injury	Should water or other substances be spilt over a Robotic Vacuum Cleaner - if it reaches the electronics or the battery it will cause the RVC to stop working. Due to the low voltage used, there is no danger of sparking or shorting out.	Be aware and report any instances where the RVCs may be subjected to liquid spilling on them.  Do not operate the RVCs where this is considered to be a risk until the issue has been resolved.	L	Cleaning Employees	Daily – before / during cleaning period.	
Floor Condition	Employees and visitors Personal Injury	Floors are in good condition and well maintained     Floor surface is suitable for the task     Floor surface is suitable for the environment     Any damage to flooring that may cause an obstruction or prevent the RVCs from cleaning effectively are reported to management.     Any additions added for the use of Robots will comply with present floor surfaces and levels     Small amounts of spilt water on floors will not cause any issues for the RVCs and they will continue to work as normal.	Any large spillages should be cleared up prior to the cleaning period if noticed. Ensure all visible obstructions are removed for the cleaning period.	L	Cleaning Employees	Daily - before / during cleaning period	
Housekeeping	Employees and visitors Personal Injury	Walkways are kept free of obstruction     Trailing wires are not used on or adjacent to walkways     Robots will be in the walkways but visible and easy to avoid if they are hit or stood on as they will stop and declare via its speaker that they need to be put in a safe place.     Employees instructed in "see it - sort it" rule	Caution signs to be supplied by TPLC.	М	TPLC	Before deployment	

		Everybody is made aware that Robotic Vacuum Cleaners could be operating in the location.					
Tasks	Employees Personal Injury	<ul> <li>Tasks, work areas and behaviours observed.</li> <li>Employees trained where time pressure, distractions and misuse of equipment or facilities is likely to increase risks.</li> </ul>		L			
Storage	Employees and visitors Personal Injury	Adequate storage or store areas to prevent items encroaching onto walkways     Store areas are well managed to allow easy access and storage of trolleys.     Any temporary storage should be well planned to accommodate the requirements of the trolley and RVCs.     All RVCs are stored away correctly after use.     The trolleys are stored next to or in front of the plug socket that is being used for charging to avoid any trailing wires.	Place the Hive Trolley into the clean cupboard and plug in to charge after each use.	L	Cleaning Staff	Daily - after cleaning period	
Steps and Stairs	Employees and visitors Personal Injury	<ul> <li>Step risers are consistent and well maintained.</li> <li>Step edges are highlighted or noses in place.</li> <li>Handrails are in place where required.</li> <li>All RVCs will detect steps/stairs and automatically turn away to avoid falling.</li> <li>Where the RVCs have to have their stair detection sensor turned off, battery operated virtual walls will be supplied.</li> </ul>	Virtual walls, wherever used, have their batteries replaced every month.	L	TPLC	Every month	
Footwear	Employees and visitors Personal Injury	Safety footwear is not required when using the Robotic Vacuum Cleaners.	None	L			
Maintenance and Calibration	Employees and visitors Personal Injury	The Robotic Vacuum Cleaners are emptied and cleaned after every use by the cleaner responsible for them.  Each week, the roller brushes underneath are removed and cleaned including the removal of any hair that has wrapped around the roller.  Annually the RVCs are serviced and PAT tested.  The Robotic Vacuum Cleaners do not require any calibration.	Empty and clean the robotic vacuum cleaners after each use.  Liaise with TPLC to arrange annual service and PAT test.	L	Cleaning Staff Cleaning Manager	Daily - after every cleaning period. Annually as agreed.	
Electricity and Fire	Employees and visitors Burns / Electric shocks	<ul> <li>The extension lead fitted onto the Hive Trolley has built in surge protection and complies fully with British Standards.</li> <li>The Robotic vacuum cleaners are</li> </ul>	Check regularly for any signs of wear in respect of chargers and cables on both the trolleys and the Robotic Vacuum Cleaners.	L	Cleaning Employees	Regularly before and after use.	

		serviced, and PAT tested annually to keep them in safe working order.  The RVCs are CE approved.  A maximum of 2 trolleys are plugged into a 13 amp mains socket at any one time to avoid overloading.	If spotted, cease use and arrange replacement with TPLC.		Cleaning Manager	Immediately on identification of issue.	
Damage to property	Employees and visitors Personal Injury	<ul> <li>The Robotic vacuum cleaners are designed with sensors underneath and a sensor on top that acts as an eye to avoid making contact with most obstacles.</li> <li>For when an object manages to evade the RVC's sensors, it is fitted with a bumper that provides a cushioning effect and causes the RVC to turn away from the object.</li> <li>Due to its relatively low speed and bumper, the RVC will not cause damage to furniture etc that cannot be removed from its path.</li> <li>Where an obstruction has not been removed and the RVC is unable to negotiate its way around it, it will stop working until the obstruction/RVC is removed.</li> </ul>	Ensure all visible obstructions are removed for the cleaning period.	L	Cleaning Employees	Daily - before and after every cleaning period.	

Assessment review date: Assessment completed by:	Signature:	Overall Risk Rating: Add High Medium or Low	
		LOW	