Career Exploration Guide for Precision Engineering

Career Exploration Guide

In today's world, the open employment market is becoming increasingly competitive, and for persons with disabilities, finding suitable employment opportunities can be particularly challenging. In response to this, there is a growing need for initiatives that aim to bridge the gap between persons with disabilities and the open job market and enable them to explore potential career opportunities. This objective is also in line with the EMP2030 target employment rate of 40%.

The current Singapore SkillsFuture (SSG) Skills Framework is designed for persons without disabilities, and our 'Career Exploration Guide' has been developed by referencing and adapting the SSG SFw Critical Core Skills (CCS) and aligning them with the Enabling Skills and Competencies Framework (Persons with Disabilities). Furthermore, the 'Career Exploration Guide' also offers a list of potential workplace challenges and corresponding accommodations that can assist individuals with disabilities in their employment.

By doing so, we hope to provide persons with disabilities with a more comprehensive and relevant skills framework to support their **job search and career development**.

Development of the Career Exploration Guide

The 'Career Exploration Guide' was designed to address the disparity in employment rates among persons with disabilities. This guide highlights the key soft skills and possible challenges and accommodations required for typical roles across different sectors, to better align the interests and abilities of persons with disabilities.

The following 35 sectors have been identified to be prevalent and emerging sectors:						
Accountancy	Aerospace	Air Transport	• Arts	Biopharmaceuticals Manufacturing	Built Environment	• Design
Early Childhood	Electronics	Energy & Chemicals	Energy & Power	Engineering Services	• Environmental Services	Financial Services
Food Manufacturing	Food Services	Healthcare	 Hotel and Accommodation Services 	Human Resources	Infocomm Technology	Intellectual Property
 Landscape and Urban Farming 	• Logistics	Marine and Offshore	• Media	Precision Engineering	Public Transport	Retail
Sea Transport	Security	Social Services	• Tourism	Training and Adult Education	Wholesale Trade	Workplace Safety and Health

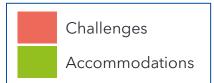
a. Essential soft skills for work readiness

- ► The essential soft skills have been adapted with reference to the SSG SFw Critical Core Skills (CCS)
- Subsequently, it was aligned and mapped back to the Enabling Skills and Competencies Framework (Persons with Disabilities) specifically designed for individuals with disabilities

b. List of possible challenges and accommodations

- The list of possible challenges and accommodations was listed down based on the domain of functioning (e.g., mobility)
- Sector-specific examples were incorporated

Challenges and Accommodations Categories



Workplace Accessibility

Challenges relating to physical barriers and limitations that hinder the accessibility of the workplace (e.g., Inaccessible entrances, narrow doorways, or lack of ramps)

Accessing and Processing Information and/or Objects

Challenges relating to barriers in obtaining, comprehending or understanding information or interacting with objects in the workplace

Workplace Navigation and Travel

Challenges relating to navigating/travelling to/moving around the workplace (e.g., wayfinding, signage and orientation in the workplace)

Social Interaction

Challenges relating to forming relationships, communicating, and connecting with others (e.g., unable to read nonverbal cues, interpret social norms, expectations, and maintain eye contact)

Environmental Stimuli

Challenges relating to one's working environment causing a sensory overload (e.g., bright lights and noises)

Nature of Job and Tasks

Challenges relating to difficulties specific to the nature of the job or work tasks in effectively performing one's job responsibilities (e.g., physically demanding tasks)

Attentiveness and Concentration

Challenges relating to difficulties in maintaining focus, attention and concentration in the workplace

Workplace Accessibility Accommodations

Modification made to the physical environment of the workplace for individuals with disabilities

Job Task Accommodations

Adjustments made to the specific tasks to enable individuals with disabilities to perform their job effectively

Job Coaching and Scheduling Accommodations

Provide support and guidance to individuals with disabilities in their job roles (e.g., mentorship, modification to work schedule)

Communication Accommodations

Modification to communication methods to ensure effective interaction with individuals with disabilities (e.g., sign language interpreters, captioning)

Sensory Accommodations

Modification to the work environment to minimise sensory distractions or provide sensory support (e.g., noisecancelling headphones)

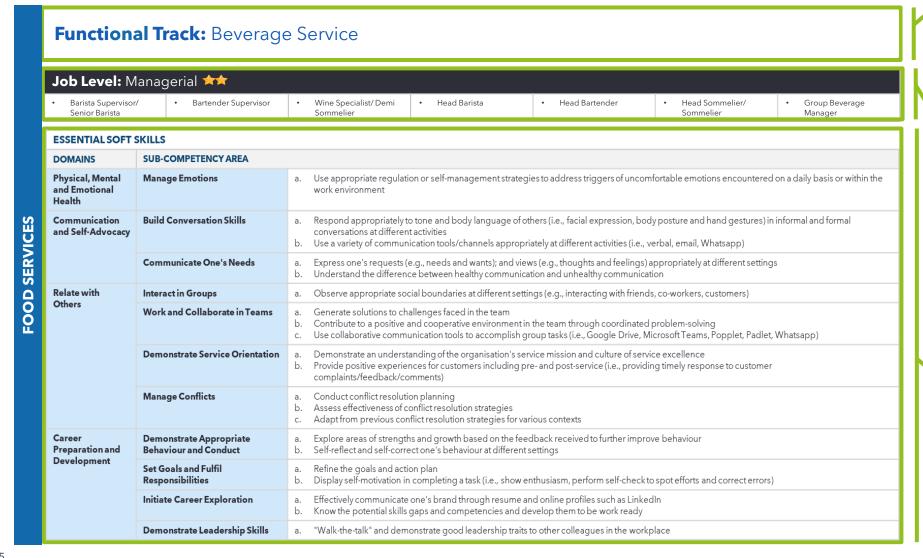
Technological Assistance

Use of technology to support individuals with disabilities in their work (e.g., assistive technology, software)

Organisational Culture

Adjustments and initiatives made within the workplace that foster an inclusive and supportive environment for all employees

How to Read the Career Exploration Guide — Essential Soft Skills for Work Readiness



Functional Track

Name of the functional track

Job Level

Job roles listed here are based on job level

Essential Soft Skills

The competencies are listed based on job levels to ensure their relevance to specific job levels

How to Read the Career Exploration Guide — Possible Challenges & Accommodations

Mobility - Challenges and Accommodations

LIST OF POSSIBLE WORK CHALLENGES

Workplace Accessibility

a. Difficulties with getting around the F&B outlet/kitchen in larger mobility aids (e.g., wheelchairs)

Workplace Navigation and Travel

 Difficulties with commuting to-and-from work (e.g., inaccessible transportation or long-distance travel to work)

LIST OF POSSIBLE ACCOMMODATIONS

Job Task Accommodations

a. Allow periodic breaks for toileting and repositioning

Technological Assistance

- a. Install devices and programmes that allow alternative access to computers (e.g. Trackballs, key guards, compact keyboard to allow accessibility to the point-of-sale system)
- b. Provide enhanced motorised wheelchairs (e.g. An elevating wheelchair enables the wheelchair user to extend their reach and retrieve items from higher shelves)
- c. Use of Assisted Travel Mobile Application (e.g. The "AllGoEasy" free platform helps wheelchair users to plan their journeys and find out if their destination is wheelchair accessible)

Workplace Accessibility Accommodations

- a. Provide wheelchair-accessible workstations (e.g. Set up kitchen amenities at a height accessible from a wheelchair)
- b. Make a slip-stop mat available
- c. Place utility and equipment controls within easy reach from a seated position (e.g. Handling a cold food holder or blast freezer)
- d. Provide and/or arrange transportation to work
- e. Ensure accessibility of premises (e.g. Install ramps, portable ramps, automatic doors, clear and accessible walkway) within the working area (e.g. Kitchen or dining area)
- f. Provide height-adjustable desks or tables for persons who cannot work comfortably at an existing desk
- g. Install height-adjustable tables for motorised wheelchairs
- h. Adjust shelving units to be at wheelchair-accessible height

Possible Challenges and Accommodations

Brief description of possible work challenges and accommodations that can be taken for the sector

FOOD SERVICES

How to Read the Career Exploration Guide — Supporting Resources

Supporting Resources



For Persons with disabilities



For Employers

Assistive Technology Fund (ATF)

SG Enable | Assistive Technology Fund (ATF)

The Assistive Technology Fund (ATF) is a valuable resource for Singaporeans with disabilities, designed to empower and support their journey towards independent living. With subsidies covering up to 90% of costs for essential assistive devices, capped at \$40,000, the ATF is committed to enhancing the quality of life for persons with disabilities. Whether it's for acquiring new technology, replacing old equipment, or making necessary upgrades, the ATF stands as a beacon of hope, ensuring that financial constraints do not hinder access to tools that facilitate autonomy in daily activities. If you or someone you know could benefit from this program, consider the ATF as your partner in navigating the path to independence and self-reliance.

Enabling Employment Credit (EEC)

Ministry of Manpower | Enabling Employment Credit (EEC)

The Enabling Employment Credit (EEC) is a government initiative designed to encourage employers to hire Persons with Disabilities (PwDs). Firms employing PwDs who have been out of work for at least 6 months will receive enhanced support. This is in addition to the existing wage offset for all PwD employees earning below \$4,000/month. With the EEC, employers can become champions of diversity and inclusion, contributing to a workforce that recognizes the talents and potential of about 10,000 PwDs annually. This credit serves as a resource for employers to not only enrich their teams but also to make a positive impact on the community by supporting the employment of PwDs.

Target Audience

Available supporting resources for different stakeholder groups: Persons with Disabilities and Employers

Link to the Resource

Click on the link to find out more about the resource

Description

Description to understand what the initiative/resource is about

Summary of Sector and Functional Tracks

Precision Engineering Sector and Functional Tracks

PRECISION ENGINEERING

- a. Technical and Engineering
- b. Management

Note:

- 1. We understand that besides the challenges already stated, the following barriers could potentially hinder persons with disabilities despite accommodations:
- a. Lack of an inclusive workplace culture
- b. Lack of awareness on how to interact with or manage persons with disabilities
- c. Lack of knowledge on how to conduct job redesign Employers can refer to the Enabling Skills and Competencies Framework (Employers) for guidance on the relevant skills to mitigate them.
- 2. The implementation of accommodations and the presence of essential soft skills required is not a key assurance of employment for persons with disabilities

Job Level: Entry 🚖



Return to summary of sectors

• Machinist / Technician • Senior Machinist / Senior Technician

DOMAINS	SUB-COMPETENCY AREA	SUB-COMPETENCY AREA		
Physical, Mental and Emotional Health	Manage Emotions	 a. Explore regulation or self-management strategies that can be applied to manage triggers or performance of tasks (i.e., taking deep breaths, counting to 20) b. Identify triggers which may result in uncomfortable emotions (e.g., anxiety, embarrassment, anger, sadness) c. Understand one's emotions and adopt techniques to manage the triggers such that one can better respond in constructive manner 		
Communication and Self-Advocacy	Build Conversation Skills	 a. Initiate informal conversation during participation at different settings b. Ask questions to seek clarity about task expectations during different activities c. Use appropriate pace, tone, volume and body language to communicate at different settings d. Listen for key information during different activities e. Observe how body language is used by others at different activities to convey meaning f. Observe turn-taking in conversations at different settings 		
	Communicate One's Needs	 a. Identify different types of communication (including verbal and non-verbal communication) b. Practise basic requests which could be made at different settings e.g., communicate that they are unwell, request to repeat instructions, ask to be provided with additional time to complete tasks 		
Relate with Others	Interact in Groups	a. Participate in basic social interaction activities with others at different settings (i.e., saying 'thank you', greeting colleagues)b. Show care and consideration when interacting with others at different settings (i.e., giving words of encouragement, asking 'How are you?')		
	Work and Collaborate in Teams	 a. Show appreciation for diverse strengths of team members b. Fulfil one's own role and responsibilities in the team towards achieving team goals c. Provide assistance and support needed by team members 		
	Manage Conflicts	 a. Apply conflict resolution techniques b. Apply effective communication techniques in a conflict c. Manage one's emotions in a conflict 		
Adaptability	Develop Problem-solving Skills	 a. Discuss possible causes and solutions to problems encountered at different settings b. Generate solutions to solve problems at different activities, independently or with help from others 		

Job Level: Entry 🖈



Return to summary of sectors

• Machinist / Technician • Senior Machinist / Senior Technician

DOMAINS	SUB-COMPETENCY AREA	
Career Preparation and Development	Demonstrate Appropriate Behaviour and Conduct	 a. Acknowledge feedback, including compliments on one's behaviour at different settings, appropriately b. Respond appropriately to feedback (i.e., from job coach or supervisor) to correct one's inappropriate action or behaviour
	Set Goals and Fulfil Responsibilities	a. Develop an action plan to complete a task according to expectations, within the given resources and time
Digital Literacy	Avoid Phishing Scams	 a. Know the different avenues (e.g., Anti-Scam helpline) for scam-related advice and to report scams b. Know how to prevent the scams (e.g., hoaxes and phishing scams) c. Identification of the common phishing scams and how to spot them (e.g., impersonation scams - do not click on any attachment linked in a message)
	Avoid Fake News Online	a. Avoid falsehoods and fake news by referring to credible sources (e.g., official government websites, reputable news agencies)
	Understand the Internet and Social Media	 a. Develop and practise a plan to stay safe when using the Internet, cell phones and social media b. Take appropriate steps to protect one's digital footprint c. Know how to create posts to connect and chat with friends d. Adopt different approaches for different social media platforms (e.g. facebook, instagram, twitter etc.)
	Responsible Use of Technology	 a. Use strategies to regulate use of electronic devices (e.g. monitor screen time) b. Know when and where to get help in managing usage of electronic devices c. Recognise online content that is undesirable or unsafe (e.g., dark web, pornography sites)
	Use the phone/other electronic devices	a. Know how to read up on news and search for information online

Job Level: Managerial★★			Return to summary of sectors
Automation Coordinator / Robot Coordinator	Process Specialist / Shift Leader / Team Leader	Assistant Engineer / Associate Engineer	Engineer
Master Craftsman	Product Engineer / Product Designer	Senior Engineer	

DOMAINS	SUB-COMPETENCY AREA		
Physical, Mental and Emotional Health	Manage Emotions	a. Use appropriate regulation or self-management strategies to address triggers of uncomfortable emotions encountered on a daily basis or work environment	
Communication and Self-Advocacy	Build Conversation Skills	 a. Respond appropriately to tone and body language of others (i.e., facial expression, body posture and hand gestures) in informal and formal conversations at different activities b. Use a variety of communication tools/channels appropriately at different activities (i.e., verbal, email, WhatsApp) 	
	Communicate One's Needs	 a. Express one's requests e.g., needs and wants; and views e.g., thoughts and feelings appropriately at different settings b. Understand the difference between healthy communication and unhealthy communication 	
Relate with Others	Interact in Groups	a. Observe appropriate social boundaries at different settings (e.g., interacting with friends, co-workers, customers)	
	Work and Collaborate in Teams	 a. Generate solutions to challenges faced in the team b. Contribute to a positive and cooperative environment in the team through coordinated problem-solving c. Use collaborative communication tools to accomplish group tasks (i.e., Google Drive, Microsoft Teams, Popplet, Padlet, WhatsApp) 	
	Manage Conflicts	 a. Apply conflict resolution techniques b. Apply effective communication techniques in a conflict c. Manage one's emotions in a conflict 	
Adaptability	Develop Problem-solving Skills	 a. Discuss possible causes and solutions to problems encountered at different settings b. Generate solutions to solve problems at different activities, independently or with help from others 	
Career Preparation and Development	Demonstrate Appropriate Behaviour and Conduct	 a. Explore areas of strengths and growth based on the feedback received to further improve behaviour b. Self-reflect and self-correct one's behaviour at different settings 	

Job Level: Executive



Return to summary of sectors

• Chief Engineer

DOMAINS	SUB-COMPETENCY AREA		
Relate with Others	Interact in Groups	a. Establish and maintain positive social relationships with different people at different settings (e.g., friends, co-workers, customers)	
	Work and Collaborate in Teams	 a. Generate solutions to challenges faced in the team b. Contribute to a positive and cooperative environment in the team through coordinated problem-solving c. Use collaborative communication tools to accomplish group tasks (i.e., Google Drive, Microsoft Teams, Popplet, Padlet, WhatsApp) 	

Functional Track: Management

Job Level: Managerial ★		Return to summary of sectors
Production Supervisor	Assistant Manufacturing Manager / Section Manager	Manufacturing Manager / Operations Manager / Production Manager

DOMAINS	SUB-COMPETENCY AREA	
Communication and Self-Advocacy	Build Conversation Skills	 a. Respond appropriately to tone and body language of others (i.e., facial expression, body posture and hand gestures) in informal and formal conversations at different activities b. Use a variety of communication tools/channels appropriately at different activities (i.e., verbal, email, WhatsApp)
	Communicate One's Needs	 a. Express one's requests e.g., needs and wants; and views e.g., thoughts and feelings appropriately at different settings b. Understand the difference between healthy communication and unhealthy communication
Relate with Others	Interact in Groups	a. Observe appropriate social boundaries at different settings (e.g., interacting with friends, co-workers, customers)
	Work and Collaborate in Teams	 a. Generate solutions to challenges faced in the team b. Contribute to a positive and cooperative environment in the team through coordinated problem-solving c. Use collaborative communication tools to accomplish group tasks (i.e., Google Drive, Microsoft Teams, Popplet, Padlet, WhatsApp)
	Manage Conflicts	 a. Conduct conflict resolution planning b. Assess effectiveness of conflict resolution strategies c. Adapt from previous conflict resolution strategies for various contexts
Adaptability	Develop Problem-solving Skills	 a. Evaluate possible solutions to problems by comparing the pros and cons b. Demonstrate resilience in overcoming problems c. Reflect on the effectiveness of the solutions to the problems as part of improving one's problem-solving process

Functional Track: Management

Job Level: Executive ★★★	Return to summary of sectors
Plant Manager	Chief Executive Officer / Chief Operating Officer / Chief Technology Officer / Managing Director / General Manager / Vice-President

DOMAINS	SUB-COMPETENCY AREA		
Relate with Others Interact in Groups a. Es		a. Establish and maintain positive social relationships with different people at different settings (e.g., friends, co-workers, customers)	
	Work and Collaborate in Teams	 a. Generate solutions to challenges faced in the team b. Contribute to a positive and cooperative environment in the team through coordinated problem-solving c. Use collaborative communication tools to accomplish group tasks (i.e., Google Drive, Microsoft Teams, Popplet, Padlet, WhatsApp) 	

Workplace Accessibility

- a. Difficulties with getting around the workplace (e.g., factory) in larger mobility aids (e.g., wheelchairs, canes)
- Difficulties with accessing buildings or locations (e.g., difficulties in dropping off in buildings that lack car parks or suitable alighting zones)

Workplace Navigation and Travel

a. Difficulties with commuting to-and-from work (e.g., inaccessible transportation or long distance travel to work)

Nature of Job and Tasks

- a. Challenges in managing workload, work pace and remuneration expectations of colleagues and clients (e.g. if colleagues view accommodations as special treatments or unfair distributions of tasks, if clients request for lower fees)
- b. Difficulties in initiating career exploration and one's organisational fit (e.g. confidence in applying for roles)

Social Interaction

 a. Challenges in maintaining client relationships and managing their expectations regarding the speed and quality of work

LIST OF POSSIBLE ACCOMMODATIONS

Organisational Culture

- a. Communicate and advocate for disability inclusiveness to external stakeholders (e.g. set, negotiate, and manage client expectations, discuss any concerns and adjust plans as necessary to align with client expectations)
- Promote an inclusive culture among employees/co-workers to facilitate relationships among all employees* (e.g. incorporating inclusion-related values and competencies into employees, educating colleagues on reasons for accommodations so that they are not seen as special treatment or unfair distribution of tasks)
- c. Facilitate accessible and diverse staff bonding activities and office social events (e.g., providing alternative activities or modifications to physical events, ensuring venues are accessible)
- d. Providing accessible and more flexible recruitment opportunities (e.g. holding interviews in disability-friendly locations)

Technological Assistance

- a. Install devices and programmes that allow alternative access to computers such as trackballs, key guards and, compact keyboard
- b. Provide enhanced motorised wheelchair (e.g., an elevating wheelchair enables the wheelchair user to extend their reach and retrieve items from higher shelves)
- c. Use of Assisted Travel Mobile Application (e.g., the "AllGoEasy" free platform helps wheelchair users to plan their journeys and find out if their destination is wheelchair accessible)

Job Task Accommodations

- a. Allow periodic breaks for toileting and repositioning
- b. Provide anti-fatigue mats and stand/lean stools where standing of extended periods of time is required
- c. Provide a cart and lifts to aid with the lifting of materials in the work site

LIST OF POSSIBLE WORK CHALLENGES	LIST OF POSSIBLE ACCOMMODATIONS
	 Workplace Accessibility Accommodations a. Provide and/or arrange transportation to and from work b. Provide height-adjustable desks or tables for persons who cannot work comfortably at an existing desk c. Provide accessible filing systems for persons who cannot reach upper and lower file drawers in a vertical file cabinet d. Place frequently used materials on most accessible shelves or drawers for those who cannot reach upper and lower shelves and drawers e. Install height-adjustable tables for motorised wheelchairs f. Allocate workspaces near to office machines (e.g., printers) or entrances/exits g. Adjust shelving units to be at wheelchair-accessible height h. Ensure accessibility of premises (e.g., install ramps, portable ramps, automatic doors, clear and accessible walkway, special flooring, lower tables) within the office or work site i. Design or highlight, where possible, accessible parking lots at work sites (e.g., parking lots without aeration slabs) j. Install the Symbol of Access directing persons with disabilities to an accessible entrance (e.g., directions leading individuals to taxi shelters with ramped pathways/walkways) k. Designate at least one accessible washroom for persons with mobility issues (e.g., toilets with grab bars and an emergency call bell) l. Develop a plan to ensure all staff are briefed on how to aid individuals with mobility issues in the event of an evacuation

Workplace Navigation and Travel

a. Difficulties with commuting to-and-from work (e.g., inaccessible transportation or long distance travel to work)

Nature of Job and Tasks

- a. Difficulties in adapting to non-routine tasks and/or changes in work schedule (e.g., responding to equipment abnormalities)
- b. Challenges in managing workload, work pace and remuneration expectations of colleagues and clients (e.g. if colleagues view accommodations as special treatments or unfair distributions of tasks, if clients request for lower fees)
- Difficulties in initiating career exploration and one's organisational fit (e.g. confidence in applying for roles)

Social Interaction

- a. Difficulties with communication (e.g., negotiating with customers to reconcile product requirements with manufacturing parameters) due to the lack of social skills (e.g., shyness, intimidation, behaviour disorders, or low selfesteem)
- Challenges in maintaining client relationships and managing their expectations regarding the speed and quality of work

Accessing and Processing Information and/or Objects

a. Difficulties in absorbing complex and large amounts of information (e.g., interpreting technical drawings and blueprints)

Attentiveness and Concentration

- Difficulty in time management and in organising/planning/prioritising (e.g., designing assembly processes to meet product requirements)
- b. Difficulties in sustaining attention or concentrating on a task for extended periods of time (e.g., keeping and maintaining records of defective final products)

Environmental stimuli

a. Sensitivity to lights and noise within the workplace (e.g., noise from equipment, tools, and machinery)

LIST OF POSSIBLE ACCOMMODATIONS

Organisational Culture

- a. Communicate and advocate for disability inclusiveness to external stakeholders (e.g. set, negotiate, and manage client expectations, discuss any concerns and adjust plans as necessary to align with client expectations)
- b. Promote an inclusive culture among employees/co-workers to facilitate relationships among all employees* (e.g. incorporating inclusion-related values and competencies into employees, educating colleagues on reasons for accommodations so that they are not seen as special treatment or unfair distribution of tasks)
- c. Facilitate accessible and diverse staff bonding activities and office social events (e.g., providing alternative activities or modifications to physical events, ensuring venues are accessible)
- d. Providing accessible and more flexible recruitment opportunities (e.g. being flexible in structure of interviews, instead of fast-paced, back-and-forth conversational styles in interviews)

Technological Assistance

a. Provide the use of voice recorders to capture instructions and information

Job Task Accommodations

- a. Provide and assist in checklists, calendars and planners to keep them on tasks (e.g., steps to install electrical sensors and devices to operate control circuitry)
- b. Separate tasks based on priority and assign new tasks only when the previous one is completed
- c. Avoid changing processes too often or abruptly. If there are any changes, explain the changes in a clear and direct way
- d. Break information up and represent them in other visual forms (e.g., infographics, pictorial representations, and simplified diagrams depicting how to operate a manufacturing equipment)

LIST OF POSSIBLE WORK CHALLENGES	LIST OF POSSIBLE ACCOMMODATIONS
	 Communication Accommodations a. Allow written response in place of verbal response for those who prefer this communication method b. Speak directly to the individual and make eye contact c. Speak in clear short sentences and use simple words d. Ask only one question at a time and allow plenty of time for a response
	Job Coaching and Scheduling Accommodations a. Engage job coaches/on-site mentors and designate a consistent buddy to support on communication and job tasks (e.g., performing surface preparation and coating on manufacturing components and products) b. Provide flexible working arrangements (e.g., flexible working hours, remote work, reduced hours and scaled-down job roles based on mutual agreement and suitability for the person with disability)
	 Sensory Accommodations a. Install anti-glare filters for fluorescent lights to allow it to more closely resemble natural sunlight b. Provide environmental sound machines, noise cancelling headsets and/or use sound control products such as carpeting to reduce background noises c. Provide a quiet room for individual to calm down and reduce sensory overload d. Avoid installing strong or colourful lighting that may cause sensory overload e. Allow employees' workstation to be positioned away from high human traffic or background noises (e.g., machine, equipment) if the person with disability requests for it
	Workplace Accessibility Accommodations a. Provide and/or arrange transportation to and from work

Nature of Job and Tasks

- a. Challenges in managing workload, work pace and remuneration expectations of colleagues and clients (e.g. if colleagues view accommodations as special treatments or unfair distributions of tasks, if clients request for lower fees)
- b. Difficulties in initiating career exploration and one's organisational fit (e.g. confidence in applying for roles)

Social Interaction

- a. Difficulties in communicating effectively with co-workers and/or clients who may have limited experience working with persons with hearing disability (e.g., negotiating with customers to reconcile product requirements with manufacturing parameters
- b. Challenges in maintaining client relationships and managing their expectations regarding the speed and quality of work

Accessing and Processing Information and/or Objects

a. Difficulties in fully capturing all of the discussion pointers raised during presentations and meetings

LIST OF POSSIBLE ACCOMMODATIONS

Organisational Culture

- a. Communicate and advocate for disability inclusiveness to external stakeholders (e.g. set, negotiate, and manage client expectations, discuss any concerns and adjust plans as necessary to align with client expectations)
- b. Promote an inclusive culture among employees/co-workers to facilitate relationships among all employees* (e.g. incorporating inclusion-related values and competencies into employees, educating colleagues on reasons for accommodations so that they are not seen as special treatment or unfair distribution of tasks)
- Facilitate accessible and diverse staff bonding activities and office social events (e.g., providing alternative activities or modifications to physical events, ensuring venues are accessible)
- d. Providing accessible and more flexible recruitment opportunities (e.g. alternative application methods such as written interviews or including sign language interpreters, instead of face-to-face)

Technological Assistance

- a. Use of personal assistive technology (e.g., hearing aids, visual communication aids to communicate face-to-face with co-workers or others)
- b. Provide the use of live transcribing applications for communication (e.g., closed captioning of videos and voice-to-text systems)
- Provide the use of Assisted Hearing Mobile Applications to record and recognise sounds/respond to environment signals
- d. Use of instant messaging software (e.g., WhatsApp) for communication
- e. Provide the use of wireless microphone and receivers for those with hearing aids to hear better and not be affected by ambient environment noise
- f. Provide the use of alerting devices that use vibrating or visual indicators (e.g., flashing lights)
- g. Install hearing induction loop system in common areas (e.g., meeting room, event halls)

LIST OF POSSIBLE WORK CHALLENGES	LIST OF POSSIBLE ACCOMMODATIONS
	 Communication Accommodations a. Provide conducive meeting environments (e.g., good lighting and visual access to the speaker) b. Ensure that one person speaks at a time c. "Educate staff to speak one at a time, maintain eye contact and not cover their mouth when speaking" d. Sit in a round table setting to facilitate lip-reading e. Conduct ground discussions in a quiet room to avoid distractions and minimise noise f. Provide any written materials such as meeting agendas, course or training outlines before meetings and meeting notes afterwards g. Provide and engage sign interpreters h. Choose Personal Protective Equipment (PPE) that does not block view of the speaker's mouth i. Encourage and send employees/co-workers to undergo a sign language course to facilitate communication Sensory Accommodations a. Provide hearing protection for those who need to work in a noisy environment (e.g., earmuffs that attenuate sound as the noise level rises)
	 Workplace Accessibility Accommodations a. Establish set paths of travel for industrial vehicles b. Establish and enforce rules requiring all moving equipment, forklifts, and vehicles to stop and flash lights/beep horn at intersections c. Install flashing strobe lights on moving vehicles d. Install a directional worker alert system that provides a visual warning of oncoming vehicles e. Install industrial mirrors around the work site in strategic locations

Workplace Navigation and Travel

a. Difficulties with commuting to-and-from work (e.g., inaccessible transportation or long distance travel to work)

Nature of Job and Tasks

- a. Challenges in managing workload, work pace and remuneration expectations of colleagues and clients (e.g. if colleagues view accommodations as special treatments or unfair distributions of tasks, if clients request for lower fees)
- b. Difficulties in initiating career exploration and one's organisational fit (e.g. confidence in applying for roles)

Social Interaction

- Difficulties with communication (e.g., negotiating with customers to reconcile product requirements with manufacturing parameters) due to the lack of social skills (e.g., shyness, intimidation, behaviour disorders, or low selfesteem)
- b. Difficulties in interacting with co-workers/supervisors who are already apprehensive about working with persons with disabilities
- Challenges in maintaining client relationships and managing their expectations regarding the speed and quality of work

Accessing and Processing Information and/or Objects

a. Difficulties in absorbing complex and large amounts of information (e.g., interpreting technical drawings and blueprints)

Attentiveness and Concentration

 Difficulty in time management and in organising/planning/prioritising (e.g., designing assembly processes to meet product requirements)

Workplace Accessibility

a. Difficulties in navigating obstacles in work environment (e.g., slippery floors or high shelves)

LIST OF POSSIBLE ACCOMMODATIONS

Organisational Culture

- a. Communicate and advocate for disability inclusiveness to external stakeholders (e.g. set, negotiate, and manage client expectations, discuss any concerns and adjust plans as necessary to align with client expectations)
- b. Promote an inclusive culture among employees/co-workers to facilitate relationships among all employees* (e.g. incorporating inclusion-related values and competencies into employees, educating colleagues on reasons for accommodations so that they are not seen as special treatment or unfair distribution of tasks)
- c. Facilitate accessible and diverse staff bonding activities and office social events (e.g., providing alternative activities or modifications to physical events, ensuring venues are accessible)
- d. Providing accessible and more flexible recruitment opportunities (e.g. being flexible in structure of interviews, instead of fast-paced, back-and-forth conversational styles in interviews)

Technological Assistance

a. Simplify or automate work processes (e.g., automation of parts of the assembly process)

Job Task Accommodations

- a. Provide frequent intermittent breaks for employees who may need conditioning and building up of stamina over time
- b. Use timer or time management application to help employee keep track of time
- c. Provide additional training time or retraining if needed, to reinforce learning
- d. Break information up and represent them in other visual forms (e.g., infographics, pictorial representations, and simplified diagrams depicting how to operate a manufacturing equipment)

LIST OF POSSIBLE WORK CHALLENGES	LIST OF POSSIBLE ACCOMMODATIONS
	Communication Accommodations a. Speak directly to the individual and make eye contact b. Speak in clear short sentences and use simple words c. Ask only one question at a time and allow plenty of time for a response
	 Job Coaching and Scheduling Accommodations a. Provide videos, visual aids or role plays to demonstrate appropriate workplace behaviours b. Engage job coaches/on-site mentors and designate a consistent buddy to support on communication and job tasks (e.g., performing surface preparation and coating on manufacturing components and products) c. Provide flexible working arrangements (e.g., flexible working hours, remote work, reduced hours and scaled-down job roles based on mutual agreement and suitability for the person with disability)
	Sensory Accommodations a. Provide a quiet room for individual to calm down and reduce sensory overload

Nature of Job and Tasks

- a. Challenges in managing workload, work pace and remuneration expectations of colleagues and clients (e.g. if colleagues view accommodations as special treatments or unfair distributions of tasks, if clients request for lower fees)
- b. Difficulties in initiating career exploration and one's organisational fit (e.g. confidence in applying for roles)

Social Interaction

a. Challenges in maintaining client relationships and managing their expectations regarding the speed and quality of work

Accessing and Processing Information and/or Objects

- a. Difficulties with or unable to manipulate objects (e.g., manufacturing equipment or machinery)
- b. Difficulties typing on a keyboard or retrieve work-related documents (e.g., digital copies of equipment logs)

Workplace Accessibility

a. Difficulties with navigating through work environment entry points (e.g., opening heavy doors and manipulating doorknobs)

LIST OF POSSIBLE ACCOMMODATIONS

Organisational Culture

- a. Communicate and advocate for disability inclusiveness to external stakeholders (e.g. set, negotiate, and manage client expectations, discuss any concerns and adjust plans as necessary to align with client expectations)
- b. Promote an inclusive culture among employees/co-workers to facilitate relationships among all employees* (e.g. incorporating inclusion-related values and competencies into employees, educating colleagues on reasons for accommodations so that they are not seen as special treatment or unfair distribution of tasks)
- Facilitate accessible and diverse staff bonding activities and office social events (e.g., providing alternative activities or modifications to physical events, ensuring venues are accessible)
- d. Providing accessible and more flexible recruitment opportunities

Technological Assistance

- a. Provide voice-activated speaker phones with large buttons, an automatic dialing system and voice mail system, and/or headsets
- b. Provide alternative access for computers (e.g., speech recognition, morse code entry, trackballs, key guards, alternative keyboards, and/or mouth sticks)
- Provide switch button to navigate and select icons on the computer screen (can be configured for other software and commands)
- d. Provide accessible switches or power controls by using adhesive Velcro to securely attach the switches or controls to surfaces
- e. Provide reading systems (e.g., scanner, computer, monitor, and sound card), Optical Character Recognition (OCR) software, and a reading and filing programme

Manual Dexterity - Challenges and Accommodations (2/2)



LIST OF POSSIBLE WORK CHALLENGES	LIST OF POSSIBLE ACCOMMODATIONS
	Job Task Accommodations a. Provide page turners and book holders for a person who cannot manipulate paper b. Provide writing aids for a person who cannot grip a writing tool (e.g., ergonomic rubber grip for pen) c. Provide equipment to aid with the better handling of workplace tools (e.g., anti-tremor gloves) d. Provide the use of single-action levers instead of knobs

Workplace Navigation and Travel

a. Difficulties with commuting to-and-from work (e.g., inaccessible transportation or long distance travel to work)

Nature of Job and Tasks

- a. Challenges in managing workload, work pace and remuneration expectations of colleagues and clients (e.g. if colleagues view accommodations as special treatments or unfair distributions of tasks, if clients request for lower fees)
- b. Difficulties in initiating career exploration and one's organisational fit (e.g. confidence in applying for roles)

Social Interaction

- a. Difficulties in non-verbal communications (e.g., body language, hand gestures, and eye contact)
- b. Challenges in maintaining client relationships and managing their expectations regarding the speed and quality of work

Accessing and Processing Information and/or Objects

- a. Difficulties in accessing computer information, and/or writing notes (e.g., digital copies of technical drawings, sketches, or blueprints)
- b. Difficulties with using a telephone in terms of accessing buttons and visual displays
- c. Difficulties in accessing printed text (e.g., font size, style, colour, contrast, and overall legibility of documents)

Workplace Accessibility

a. Difficulties with workplace navigation (e.g., difficulty reading signage, noticing obstacles that may be in one's path)

LIST OF POSSIBLE ACCOMMODATIONS

Organisational Culture

- a. Communicate and advocate for disability inclusiveness to external stakeholders (e.g. set, negotiate, and manage client expectations, discuss any concerns and adjust plans as necessary to align with client expectations)
- Promote an inclusive culture among employees/co-workers to facilitate relationships among all employees* (e.g. incorporating inclusion-related values and competencies into employees, educating colleagues on reasons for accommodations so that they are not seen as special treatment or unfair distribution of tasks)
- c. Facilitate accessible and diverse staff bonding activities and office social events (e.g., providing alternative activities or modifications to physical events, ensuring venues are accessible)
- d. Providing accessible and more flexible recruitment opportunities (e.g. making job advertisements and postings screen-reader compatible, using clear and inclusive language)

Technological Assistance

- a. Provide assistive technology for computer use (e.g., Text-to-speech software, screen reader software, screen magnifier, large-font keyboards, Microsoft Reader, verbal presentation queues)
- b. "Use of assisted Visual Mobile applications (e.g., take a photo of the surroundings/objects and use crowdsourcing and image recognition to identify objects/surroundings)"
- c. Provide the use of assistive technology for note-taking (e.g., digital recorder, speech dictation software, braille stylus/braille slate, braille printer, scribe/notetaker)
- d. Provide the use of assistive technology for using a telephone (e.g., telephone light sensor, talking telephone console indicators and message displays, smartphone screen reading)
- e. Fit machines with speech outputs or larger control screens

LIST OF POSSIBLE WORK CHALLENGES	LIST OF POSSIBLE ACCOMMODATIONS
	 Job Task Accommodations a. Provide reading/training/meeting materials in advance for employees to review (e.g., braille formatted document, large print, tactile graphic document) b. Provide auditory versions to enable ease of documenting client design details c. Provide the use of photo copier enlarged paper material d. Use overlay to increase colour contrast between printed text and document background (e.g., colour paper, acetate sheet) e. Provide a physical jig or fixture developed to assist with guiding a cutting, sewing, or assembly operation Communication Accommodations a. Use specific and descriptive language (e.g., instead of saying "there is a kerb", say "there is a kerb on your right") Job Coaching and Scheduling Accommodations
	 a. Provide flexible schedule (e.g., remote working, longer travelling time) b. Engage job coaches/on-site mentors and designate a consistent buddy to support on job tasks and workplace navigation
	Sensory Accommodations a. Provide the use of anti-glare screen protectors to reduce screen glare
	 Workplace Accessibility Accommodations a. Provide and/or arrange transportation to and from work b. Avoid placing items along the common walkway as it may disorientate employee's mental route map c. Familiarise employee with the amenities within the company and around the building such as the facilities and floor plan by orientating and walking with them (orientation might take a few weeks) d. Allow service animal and/or mobility aid (e.g., cane), detectable warning surfaces e. Provide tactile map of evacuation and common routes f. Provide a well-lit working environment

Supporting Resources



For Persons with disabilities

Assistive Technology Fund (ATF)

SG Enable | Assistive Technology Fund (ATF)

The Assistive Technology Fund (ATF) is a valuable resource for Singaporeans with disabilities, designed to empower and support their journey towards independent living. With subsidies covering up to 90% of costs for essential assistive devices, capped at \$40,000, the ATF is committed to enhancing the quality of life for persons with disabilities. Whether it's for acquiring new technology, replacing old equipment, or making necessary upgrades, the ATF stands as a beacon of hope, ensuring that financial constraints do not hinder access to tools that facilitate autonomy in daily activities. If you or someone you know could benefit from this program, consider the ATF as your partner in navigating the path to independence and self-reliance.



For Employers

Enabling Employment Credit (EEC)

Ministry of Manpower | Enabling Employment Credit (EEC)

The Enabling Employment Credit (EEC) is a government initiative designed to encourage employers to hire Persons with Disabilities (PwDs). Firms employing PwDs who have been out of work for at least 6 months will receive enhanced support. This is in addition to the existing wage offset for all PwD employees earning below \$4,000/month. With the EEC, employers can become champions of diversity and inclusion, contributing to a workforce that recognizes the talents and potential of about 10,000 PwDs annually. This credit serves as a resource for employers to not only enrich their teams but also to make a positive impact on the community by supporting the employment of PwDs.

Supporting Resources



For Employers

Employment Support Programme

SG Enable | Employment Support for Employers to hire PwDs

The Employment Support Programme for PWDs, backed by Workforce Singapore and SkillsFuture Singapore and administered by SG Enable, offers employers subsidies, grants, and services to aid in hiring and integrating Persons with Disabilities into their workforce. Employers benefit from up to 90% course fee subsidies, job redesign grants capped at \$20,000, and a year of complimentary recruitment and job support services, enhancing workplace inclusivity and leveraging the unique talents of PWDs. This programme is also aligned with the SkillsFuture Enterprise Credit scheme for additional financial support.

Open Door Programme (ODP)

MSF, WSG | Open Door Policy (ODP)

The Open Door Programme (ODP), funded by the Ministry of Social and Family Development and Workforce Singapore, and managed by SG Enable, is a key resource for employers to support the employment of persons with disabilities. It offers grants for job redesign, training subsidies, and recruitment services, helping employers to create an inclusive workplace that values diversity and nurtures talent among persons with disabilities.

Job Accommodation Network (JAN)

Job Accommodation Network

The Job Accommodation Network (JAN) offers guidance on creating inclusive workplaces through accommodations. It provides comprehensive A to Z listings by disability, limitation, function, and topic, with practical solutions like equipment modification, job restructuring, and policy adjustments. Employers can use JAN as a starting point to foster a supportive environment and ensure the success of their employees with disabilities.