

## COVID-19 Child (Workspace) Plan Change Log

### Change log:

Date	Version	Writer	Change Description	Approved By
2020.12.10		David, Roberts ICICS Technical Manager & LST Coordinator	<p><b>3.4 Spatial Analysis: Occupancy limits, floor space, and traffic flows:</b> As recommended by the Dean’s Office in the Faculty of Applied Science, ICICS will use a QR code for check-in/out of the building in order</p> <ul style="list-style-type: none"> <li>• QR code for sign-in and sign-out:               <ul style="list-style-type: none"> <li>○ Sign in captures name, date and time, department. When they answer “arriving”, the self-assessment for COVID-19 symptoms is imbedded in this survey.</li> <li>○ When they answer “departing”, name, date as well as a list of primary rooms they have been in will be included. No self-assessment required at exit. <i>*There may be reason for exemptions to accommodate systems for shared buildings.</i></li> </ul> </li> <li>• ICICS will complete compliance checks (can be random) to ensure the 2/3 occupancy is not exceeded</li> </ul> <p><b>3.5. Worker Screening:</b> ICICS will ensure that the check-in &amp; check-out QR code (provided by the Dean’s Office) is posted on the entrance doors of the ICICS building (where possible). The survey will have the questions from <a href="#">Thrive BC Self-Assessment Tool</a>.</p> <p><b>3.6. Prohibited Worker Tracking:</b> The QR code Qualtrics survey database will have the information if someone who tried to access a building has COVID-19 symptoms.</p>	



COVID-19 Workspace Safety Plan Document Revision for *Mu Chiao ICICS X027*

<b>Date</b>	<b>Version</b>	<b>Writer</b>	<b>Change Description</b>	<b>Approved By (Name + signature or initials)</b>
2020.09.10	1.0	Mu, Chiao, PI	Document first approved	<i>Head of Unit / Dean / VP, Role</i>
2020.10.27	2.0	David, Roberts, ICICS LST Coordinator	Section 7: Mandatory Mask Introduction: links edited	



## Section #7 – Non-Medical Masks

### 7.1. Non-Medical Masks (New)

Describe your plan to inform faculty and staff on the wearing of non-medical masks

- See [Using Non-Medical Masks](#) website for the most up to date information
- Effective September 16, 2020 UBC implemented a policy whereby students, faculty, staff and visitors are required to wear non-medical masks in common indoor spaces on campus.
  - Office spaces:
    - Non-medical masks are not required when working in a sole occupant office or enclosed room.
    - In individually assigned cubicles in open concept workspaces that have been designated to ensure they are 2m apart or have appropriate physical barriers: while occupying an assigned workspace, users have the option to remove their non-medical mask when seated or while engaged in activities where the physical distancing requirement is met.
    - Non-medical masks are not required in internal office hallways that have been designated as one way, yield to others, or able to meet physical distancing requirements.
  - Labs / workshops:
    - Non-medical masks are not required when working in a sole occupant lab / workshop or enclosed room.
    - In lab spaces / workshops that have been designated to ensure occupants are working 2m apart or have appropriate physical barriers: users have the option to remove their non-medical mask while engaged in activities where the physical distancing requirement is met.
  - Classrooms:
    - Faculty and instructors are not required to wear a non-medical mask in classrooms while physically distanced (2m) from students and other classroom users.
    - In classrooms where capacities have been reduced so that designated seats are 2m apart: students and other classroom users have the option to remove their non-medical mask when seated in designated seats, or while engaged in activities in a classroom where the physical distancing requirement it met.
  - As per UBC's policy, non-medical masks must be worn:
    - When travelling through building corridors and shared spaces;
    - While entering or exiting research spaces or while moving from an assigned research location;
    - While entering or exiting classrooms;
    - Within classrooms while moving to a seat;
    - Any other time that 2m physical distancing cannot be maintained.



The following information and language supersede any language found in the initial document approved.

## Regulatory Context

### 3. Provincial and Sector-Specific Guidance

- [BC's Restart Plan: "Next Steps to move BC through the pandemic"](#)
- [BC COVID-19 Self Assessment Tool \(New\)](#)

### 4. WorkSafeBC Guidance

- [COVID-19 and returning to safe operation - Phases 2 & 3](#)
- [WorkSafeBC COVID-19 Safety Plan](#)
- [WorkSafeBC: Designing Effective Barriers](#)
- [WorkSafeBC: Entry Check for Workers](#)
- [WorkSafeBC: Entry Check for Visitors](#)
- [WorkSafeBC Protocol: Offices \(New\)](#)
- [WorkSafeBC Protocols: Post-Secondary Education \(New\)](#)

### 5. UBC Guidance

- [COVID-19 Campus Rules \(New\)](#)
- [Guidelines for Preparing for Reoccupancy\(New\)](#)
- [Guidelines for Safe Washroom Reoccupancy\(New\)](#)
- [Space Analysis and Reoccupancy Planning Tool\(New\)](#)
- [UBC Employee COVID-19 PPE Guidance](#)
- [Ordering Critical Personal Protective Equipment](#)
- [UBC Employee COVID-19 Use of Shared UBC Vehicles Guidance\(New\)](#)
- [UBC Facilities COVID-19 website - Service Level Information](#)
- [UBC Employees COVID-19 Essential In-person Meetings/Trainings Guidance\(New\)](#)
- [Workplace Physical distancing Planning Tool and Signage Kit\(New\)](#)
- [Preventing COVID-19 Infection in the Workplace training course\(New\)](#)
- [UBC Cleaning Standards & Recommendations for Supplementary Cleaning\(New\)](#)
- [UBC Classroom Safety Planning\(New\)](#)
- [UBC Signage\(New\)](#)
- [COVID-19 Safety Plan Addendum: Required Non-Medical Masks \(New\)](#)



## COVID-19 Workspace Safety Plan – Lab Specific

*Use of this template: All light italicized grey font are instructional and must be removed before final copy is approved.*

This workspace safety plan will assist Principal Investigators who wish to continue or resume research activities in their lab. This plan will include a review of activities to be undertaken in the lab to ensure effective controls are in place to prevent the spread of COVID-19. Principal Investigators are responsible for ensuring this document reflects current government guidance and notices which can be found, along with information about UBC’s response to the pandemic at <https://covid19.ubc.ca/>.

This plan must be reviewed by your Local Safety Team, and signed by your Unit Head/Director. Once complete, the plan can be submitted with your online application to return to research.

### Resources to Consult

The following guidance documents and resources were used in the development of this plan:

- [Preventing Exposure](#)
- [Personal Protective Equipment](#)
- [Physical Distancing Guidelines](#)
- [Reporting COVID-19 Exposure](#)
- [Communications Resources](#)
- [UBC Research Resumption webpage](#)
- [WorksafeBC](#)

### Section #1: Lab information

Department	<u>Mechanical Engineering</u>
Faculty	<u>Applied Science</u>
Building(s)	<u>ICICS</u>
Lab(s)/workspace(s)	<u>X027 and 087</u>

### Introduction to Your Lab

The research activities of the Chiao’s lab are mainly conducted in the ICICS building, in Room X027. Some lab members usually have or need to access also AMPEL 143A (Soft Lithography - shared facility) and AMPEL 446 (cleanroom – shared facility). The current size of the group is 8 members. The group conducts research on Microelectromechanical Systems such as drug delivery devices and miniature endoscopes. We use the facilities to fabricate and characterize microdevices. One student uses ICICS 087 as office space.

ICICS X027 and 087 floor plan-please see Appendix

### Section #2 - Risk Assessment



**1. Lab/workspace Occupancy (under proposed COVID-19 operations)**

List the number of people that will be present in your lab/workspace at the same time. List this by every room/lab/workspace you occupy.

**Confirm that you have discussed each employee’s comfort level** with returning to work and have addressed any concerns, or will require further assistance in doing so. *Any worker (staff, students, faculty, post docs, research associates, technicians and other research personnel) who has concerns about returning to work on campus can request an exemption to his/her supervisor.*

- Any worker (staff, students, faculty, post docs, research associates, technicians, and other research personnel) who had concerns about returning to work on campus has requested an exemption to the PI.
- Where possible, workers (HQP, research staff, others) are instructed to work from home.
- Anybody who has travelled internationally, been in contact with a clinically confirmed case of COVID-19 or is experiencing “flu like” symptoms **MUST** stay at home.
- All employees are aware that they must maintain a physical distance of at least 2 meters from each other at all times
- The maximum capacity of the lab space is normally 12 users. At any given time, only 4 users at a time (1/3) will be allowed in the lab space in Room X027 and one user (Gunawardane) in Room 087.
- All lab members are HQPs who mainly run experimental work.
- Lab members who can currently work remotely or have raised concerns about their health remain working remotely.

Name	Status	Email	Mobile number	#hours/week	Reasons for returning
Ali Shademani	PhD student	[REDACTED]	[REDACTED]	10	4 <sup>th</sup> year PhD, Needs experimental data to graduate. Need to access the 3D printer.
Jason Hu	MASc student	[REDACTED]	[REDACTED]	15	2 <sup>nd</sup> year MASc needs experimental data from laser optics to graduate
PDSH Gunawardane *	PhD student	[REDACTED]	[REDACTED]	10	2 <sup>nd</sup> year PHD. Needs experimental results from the 3D printer to advance to Candidacy. He won <u>Friedmen Scholarship for Health</u> to visit Australia in April 2021, he will need to have experimental data accompanies him to Australia.
MinghuaWu	PhD student	[REDACTED]	[REDACTED]	10	2 <sup>nd</sup> year Ph.D. Needs access to laser equipment. So he can preparing for proposal defense.
Hamed Helisaz	PhD student	[REDACTED]	[REDACTED]	15	3 <sup>rd</sup> year Ph.D. Need access to the 3D printer to make samples so he can collect data and graduate in 2021



\*PDSH Gunawardane also needs to access X087 occasionally while running experiments in X027. **The reason is to iteratively running experiments in X027 while performing simulation in X087 using a lab computer.** The results from simulation will need to experimental data and vice versa to get optimized results. It is impossible to run the simulation software using remote VPN since the significant lag impedes proper software operation.

- *Provide actual numbers and percentage of previous i.e. 1/3 of 'normal' operations*
- *Outline who remains working remotely and who you've requested back to work and why*

## 2. Hazard Identification

Describe what hazards exist in your lab/workspace; both research- related (chemicals, heavy machinery) and COVID-19-related (areas that require closer personal interaction, equipment/instruments that cannot maintain social distancing i.e. that require >1 person to operate)

Laser machining equipment.

## 3. Employee (HQP, research staff, other) Input/Involvement

Detail how you have involved frontline workers (HQP and research staff) and Joint Occupational Health and Safety Committees (JOHSC) and/or Local Safety Teams (LST) in identifying risks and protocols as part of this plan.

Describe how you will **publish** your plan (online, hardcopy) and otherwise communicate workplace health measures to employees. Guidelines from SRS are available here: <https://srs.ubc.ca/covid-19/health-safety-covid-19/working-safely/>

- The approved final plans will be sent by email to all the employees and will be posted on the main door to ICICS X027. An additional copy will be available inside the room.
- The workplace health measures will be communicated by email to all employees.
- The maximum occupancy of people will be posted for each room in large bold and clearly visible font. The maximum occupancy of people, the safety plans, and the instructions to access the online scheduling system will be posted on the front door.
- Final plans will be posted to UBC's COVID-19 Safety Plan website.

## Section #3 – Hazard Elimination or Physical Distancing

*The following general practices shall be applied for all UBC buildings and workspaces:*

- *Where possible, workers (HQP, research staff, others) are instructed to work from home.*
- *Anybody who has travelled internationally, been in contact with a clinically confirmed case of COVID-19 or is experiencing "flu like" symptoms must stay at home.*
- *All employees are aware that they must maintain a physical distance of at least 2 meters from each other at all times*
- *Do not touch your eyes/nose/mouth with unwashed hands*
- *When you sneeze or cough, cover your mouth and nose with a disposable tissue or the crease of your elbow, and then wash your hands*
- *All employees are aware of proper handwashing and sanitizing procedures for their workspace*



- Supervisors must ensure large events/gatherings (> 50 people in a single space) are avoided
- Supervisors must ensure that all workers have access to dedicated onsite supervision at all times; via their own presence, members of safety committees, campus security or other. When working alone, HQP and staff must be aware of working alone procedures and how these have been adapted for COVID-19.
- All staff wearing non-medical masks are aware of the risks and limitations of the face covering they have chosen to wear or have been provided to protect against the transmission of COVID-19. See [SRS website](#) for further information.
- Note transportation/vehicle guidelines if applicable: 1 Person per vehicle, unless the vehicle is large enough to maintain 2m between occupants.

#### 4. Scheduling

For those required or wanting to resume work at UBC, detail how you are rescheduling employees (e.g. shifted start/end times) in order to limit contact intensity at any given time at UBC.

Discuss your **working alone procedures** and how they will be adapted for this safety plan. Also describe how you will track those entering/leaving work i.e. sign in/sign out process

- At this time shiftwork is not permitted
- An online calendar will be shared with the all the users of the lab space. Access to the calendar is given after PI approval.
- Gable Yeung [access@icics.ubc.ca](mailto:access@icics.ubc.ca) will be given access to the online scheduling platform.
- Online sign up for X027 will be regulated by the PI to ensure that people present at the same time are not in conflict for the same resources.
- Each employee has their own dedicated workbench, limiting contact intensity.
- For working alone procedures, a check in designate has been nominated, who will check every two hours by phone call or text messages on people working alone. When the check-in designate (buddy) fails to make contact, the buddy will contact Campus Security at 604-822-2222 for an in-person check.

#### 5. Occupancy limits, floor space, and traffic flows

APSC recognizes that labs are dynamic environments and it may be challenging to adhere to physical distancing guidelines. Nonetheless, controls must be in place to keep personnel spaced at least 2m apart at all times. Clear communication of this to employees, monitoring of implementation, in addition to physical controls (signage) are needed.

**As such: Using floor plans and/or photographs of your lab/workspace:**

- 1) Identify and list the rooms and **maximum occupancy** for each workspace/area;
- 2) Illustrate a 2 metre radius circle around stationary workspaces/benches/instruments and common areas or equivalent approach to social distancing; and
- 3) Illustrate one-way directional traffic flows

- Room X027 normally allows a maximum capacity of 12 people. To follow safety procedures, only a 4 people maximum capacity (25%) will be allowed.
- Room 087 allows a maximum of 2 people. But currently only 1 student is using it as office space.



- For each lane in between benches, only one person at a time is allowed
- As seen in the Appendix, tape will be positioned on the floor to indicate where the 2 m safe distance is from doors and sinks, as shown in the room outline (red line). When entering and exiting from a door, the person who needs to go out of the room has the priority. Follow arrows (black arrows) on the floor for walking direction.
- To meet physical distancing requirements, the lab space can be reserved online to limit access to no more than 2 people.
- The lab members are not supposed to access meeting rooms in the building. For common spaces, they are instructed about sanitizing the surfaces before and after use

## Section 4 – Engineering Controls

### 6. Cleaning and Hygiene

Detail the cleaning and hygiene regimen required to be completed by HQP, research staff and the PIs for common areas/surfaces (Custodial has limitations on cleaning frequency, etc.).

Outline specific cleaning processes and schedule for high-touch equipment, specialized/sensitive equipment or other unique circumstances to your lab/workspace. Detail how and what types of cleaning products and disposal options you will provide. If possible, include cleaning stations/infrastructure on your lab photos/plan.

- Each user has their own personal bench space labeled.
- Sanitization protocol includes cleaning of personal and common surfaces at the beginning and at the end of each use with spray disinfectant or wipes.
- Room X027 is equipped with 1 sink used as handwashing stations: The stations are equipped with soap and paper towels, provided by ICICS
- Room X027 will be equipped by the PI with hand sanitizer.
- Spray disinfectant and cleaning wipes are located at the sinks. Each user will have the responsibility to sanitize personal and common surfaces at the beginning and at the end of each session.
- Each user is supposed to clean goggles before and after use.
- All staff wearing non-medical masks are aware of the risks and limitations of the face covering they have chosen to wear or have been provided to protect against the transmission of COVID-19
- List of high-contact points to be cleaned at the end of each employee’s use of the space:
  - Doors
    - Faucets
    - Handles
  - Sink
    - Faucets
    - Handles
  - Cabinets
    - Handles
  - Stair rail
  - 3D printer control panels
  - Optical table surfaces



<ul style="list-style-type: none"><li>○ Lab bench surfaces</li><li>● Things that need to be cleaned will be labeled with signage i.e. ‘ready for use’ vs ‘needs cleaning’, having ‘hot zones’ for smaller equipment/tools (bins to collect soiled equipment so others don’t use it).</li><li>● The used cleaning supplies and masks will be collected in separate plastic bags that will be disposed in the garbage bin at the end of the working day.</li></ul>
<b>7. Equipment Removal/Sanitation</b> Detail your appropriate removal of unnecessary tools/equipment/access to areas and/or adequate sanitation for items that must be shared that may elevate risk of transmission, both research-related (i.e. instruments, tools) and general (i.e. coffee makers in break rooms)
<ul style="list-style-type: none"><li>● Each lab user has their own personal bench space labeled.</li><li>● For common spaces and equipment, lab members are instructed about sanitizing the surfaces before and after each use with sanitizing spray and wipes.</li><li>● The lab members are not supposed to access meeting rooms in the building, but are invited to meet in open spaces at 2 m safe distance</li></ul>
<b>8. Safety Infrastructure Requests (Partitions, Plexiglass installation)</b> Describe any needs for safety infrastructure i.e. physical barriers, plexiglass installation required for your lab/workspace and if possible include them on your photos/room plan.
<ul style="list-style-type: none"><li>● No need for safety infrastructure</li></ul>

## Section 5 – Administrative Controls

<b>9. Communication &amp; Training Strategy for Employees</b> Describe how you (the PI) have or will communicate the risk of exposure to COVID-19 in the workplace to your HQP/research staff/other employees and the safety controls in place to reduce such risk.  Detail how you will ensure that all employees successfully complete the <b>Preventing COVID-19 Infection in the Workplace</b> online training and orientation to your specific safety plan
<ul style="list-style-type: none"><li>● Employees with symptoms MUST stay home!</li><li>● Before coming to UBC, all employees, students and visitors must monitor their health status. If you are feeling unwell in any way, do not come in, and follow medical advice. Further instructions at <a href="http://bccdc.ca">bccdc.ca</a></li><li>● If you believe you have been exposed to COVID-19 in the workplace notify Mu Chiao immediately.</li><li>● Likewise, employees are asked to raise safety concerns with the PI.</li><li>● Records of the completed training courses for all personnel under the PI supervision, and the signed statement that the personnel have read and understood the building, university and WorkSafe policies relevant to the Phase I restart will be kept.</li></ul>



**10. Signage**

Detail the type of signage you will utilize and how it will be placed (e.g. floor decals denoting one-way walkways and doors, 'cleanliness state' of equipment/instruments, hand-washing guidance). See [WorksafeBC](#) for signage guidelines and templates.

- For each lane in between benches, only one person at the time is allowed
- Tape will be positioned on the floor to indicate the 2 m safe distance is from doors, sinks and fume hood, as shown in the room outline (red lines). When entering and exiting from a door, the person who needs to exit the room has the priority.
- Things that need to be cleaned will be labeled with signage i.e. 'ready for use' vs 'needs cleaning', having 'hot zones' for smaller equipment/tools (bins to collect soiled equipment so others don't use it).

**11. Emergency Procedures & Reporting**

PIs must ensure that all employees entering the lab should be aware of the Building Emergency Response Plan (BERP) and have access to it. If applicable, detail your strategy to amend your lab's emergency response plan procedures during COVID-19.

See the SRS guidelines for handling potential COVID-19 incidents here: <https://srs.ubc.ca/covid-19/health-safety-covid-19/reporting-covid-19-exposure/>

The ICICS BERP will be available in the lobby and will be posted on the website.

All accident and incident reporting should be submitted at [www.cairs.ubc.ca](http://www.cairs.ubc.ca)

**12. Monitoring**

Describe how you will monitor your workplace (supervisor, departmental safety representative, other) and update your plans as needed; detail how employees can raise safety concerns (e.g. via the JOHSC or Supervisor).

- Employees can raise concerns to Mu Chiao, [muchiao@mech.ubc.ca](mailto:muchiao@mech.ubc.ca), to the BRIM LST, to the MECH LST, or the JOHSC.

**Section #6 – Personal Protective Equipment (PPE)**

**13. Personal Protective Equipment**

UBC has a [central process for purchasing PPE](#). Describe what PPE you will require for your lab.

#	Type of PPE	Activity and PPE Use Rationale
	Gloves	Handling devices: gloves protect devices from contamination by the user.
	Laser safety goggles	Operating laser: safety goggles protect the user from laser. All users have laser safety training certificates.

- *If applicable list any other protective controls such as access to showers/laundry facilities*



- *Discuss how you will safely dispose of soiled PPE*

### Acknowledgement

I confirm that this Safety Plan has been shared with all workers (HQP, research personnel, etc.) who will be accessing this space both through email and will be made available as a shared document. Workers can either provide a signature or email confirmation that they have received, read and understood the contents of the plan.

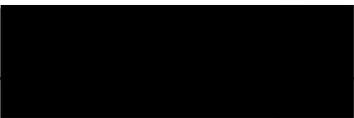
**Date** Aug 27 2020  
**Name (Manager or Supervisor)** Mu Chiao  
**Title** Professor

### Department/School Head/Director Approval

Steve Feng, Department Head Mechanical Engineering  
Name, Title

October 28, 2020  
Date

Signature

X 

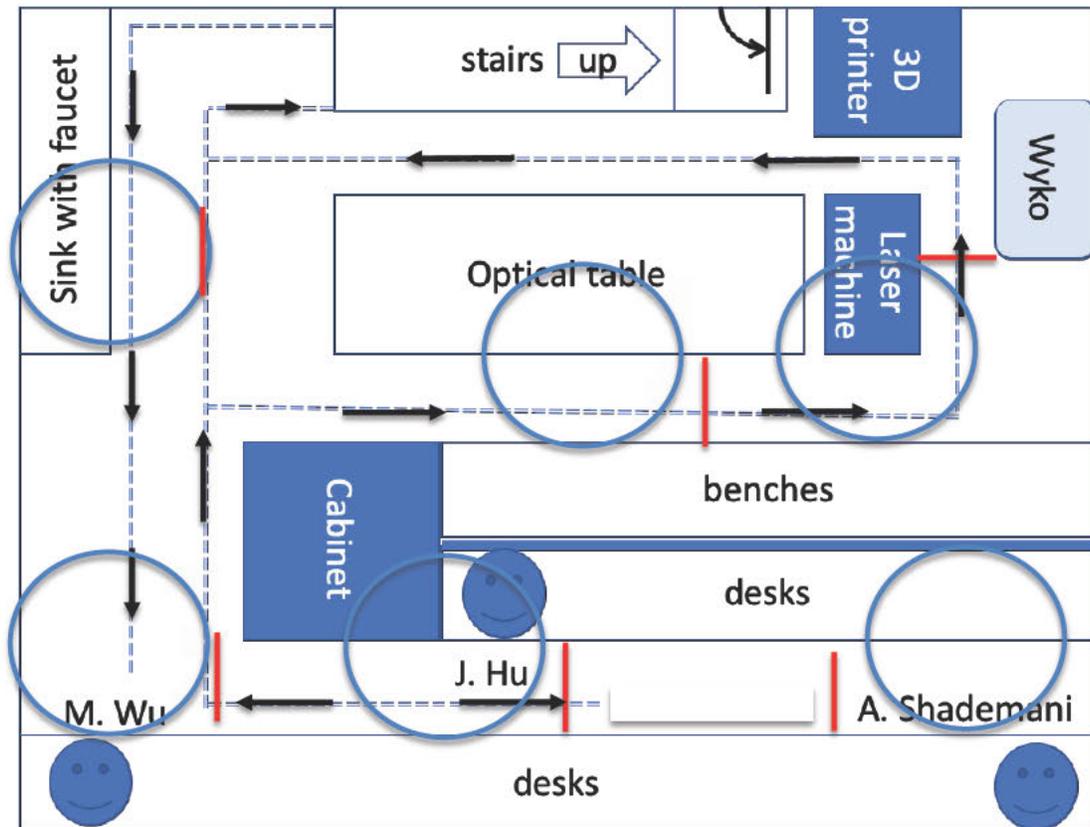


## Appendix

Please attach any maps, pictures, departmental policies or risk assessments applicable UBC Guidance documents, where necessary, and other regulatory requirements referred to in document.

APSC specifically requests photographs of your current lab layout, as well as your proposed usage layout i.e. where HQP will work, what areas will be closed off, where signage will be placed, etc. If floor plans of your lab/shared workspace is available, please append these as well.

### Room X027 Layout



Walkway:

Two-meter circle:

Two-meter divider marking:

Walk way direction:



**Room 087 Layout**

