

Design Goals

Background

The site analysis was decided to be done at the gym of the Singapore University of Technology and Design.

The SUTD Gym is a fitness hub commonly visited by **health-conscious individuals, bodybuilding enthusiasts and athletes alike**.

Strengths

Spanning 2540 sq ft, SUTD's spacious gym hosts a **wide variety of equipment and facilities** to cater to numerous exercises.

This brings about **accessibility and versatility** for its diverse user base.

Furthermore, with its close proximity to student housing, the main campus, as well as nearby business districts, it is **easily accessible** by the community.

The gym welcomes visitors ranging from **SUTD students, faculty** to the **public**.

Weaknesses

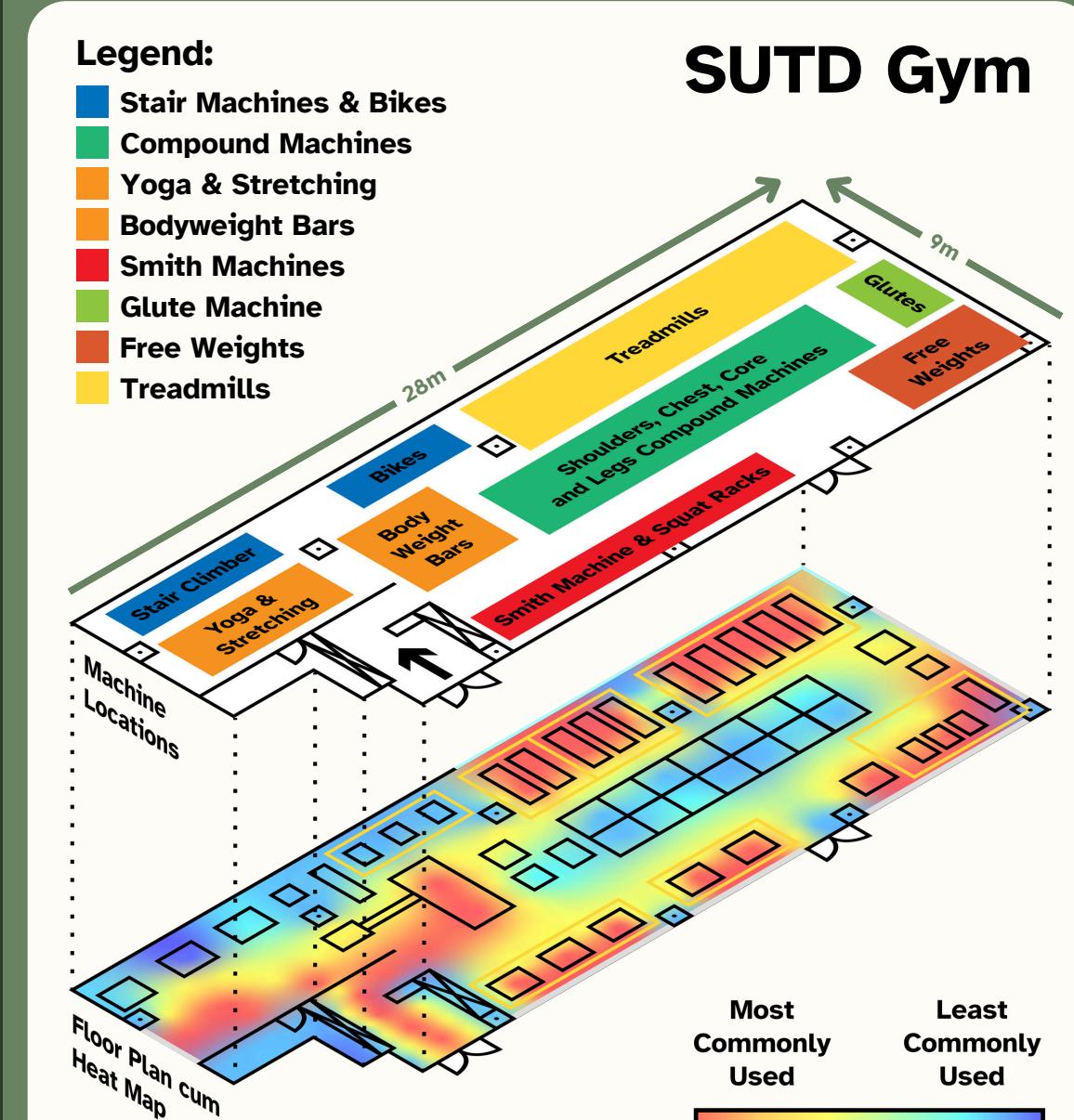
The SUTD Gym currently **falls short in active engagement and guidance** of its members.

There is a **noticeable absence of holistic support systems** to encourage safe, sustained participation and efficient progress, limiting the gym's capacity as a dynamic hub for wellness.

Opportunities

Recognising users' desires for a comprehensive, interactive environment that empowers them to improve their fitness, herein lies our design goal - *to design a light encompassing solution that not only encourages safety, but also maximises the effectiveness of workouts for gym-goers of all fitness levels.*

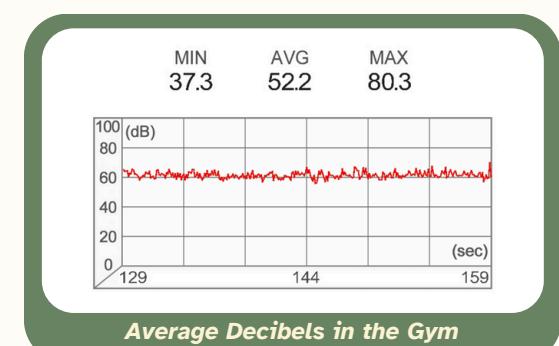
Site Analysis



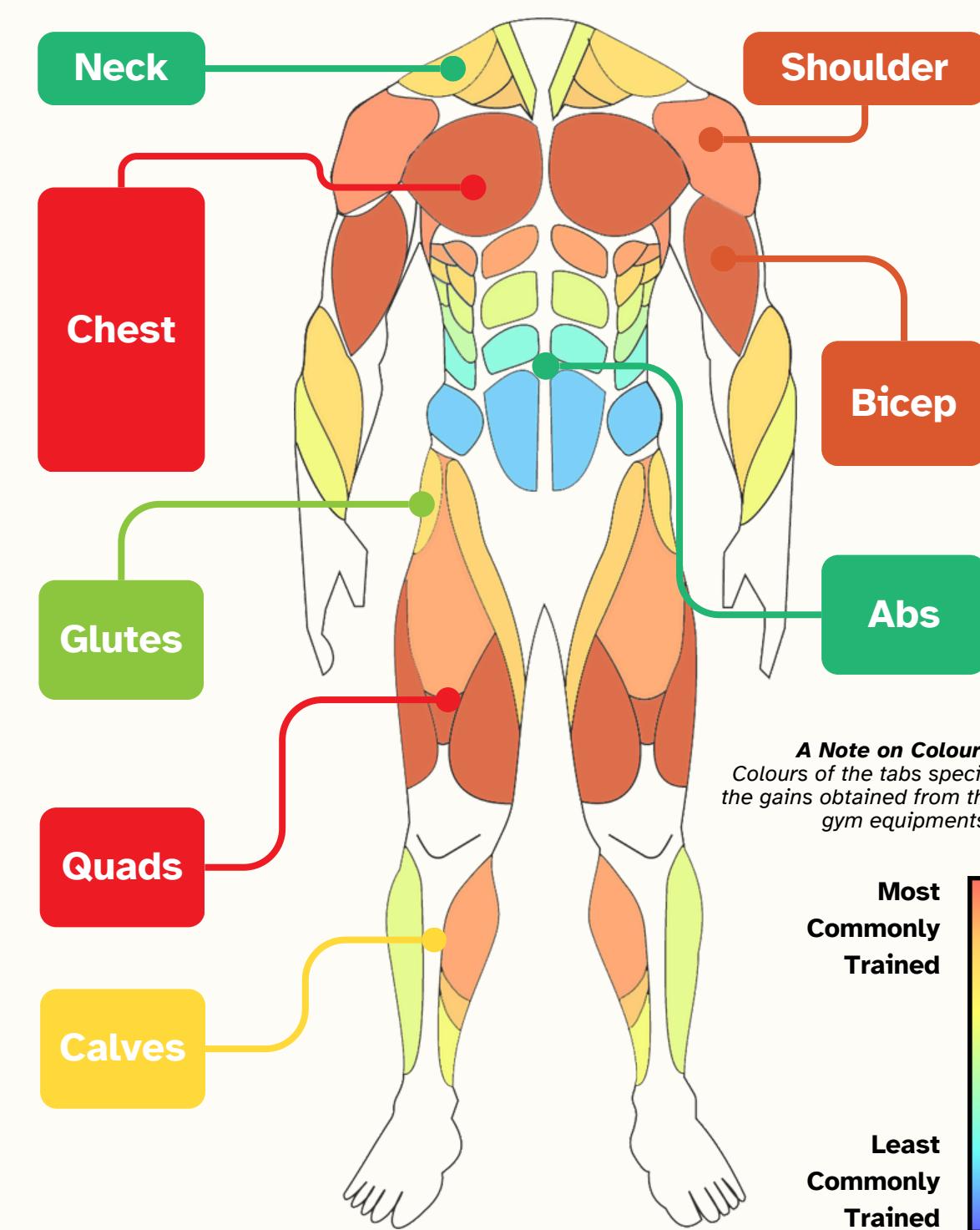
Analysis of Heat Map - Equipment Popularity

The heat map provides useful information on machine popularity:

- Bench Press & Squats, Free Weights and Treadmill** sections are the most frequented.
- Shoulders, Chest, Core and Leg Compound Machines, and Stair Machines & Bikes** are least frequently used.



Body Heatmap



Body Heat Map Analysis

Extrapolating the **Equipment Popularities** from the **Heat Map Analysis**, we can study the **most and least** frequently trained muscles groups:

- Chest, Biceps and Squats** are among the favourites while the **legs and core** tend to be neglected.

Opportunities

There is a **clear tendency** of gym-goers to **prioritise certain muscle groups** over others or **stick to familiar routines**. This represents an opportunity for **restructuring of workout regimens** to promote a more **balanced and efficient** approach to gymming.

Activity Map

Details the flow of events

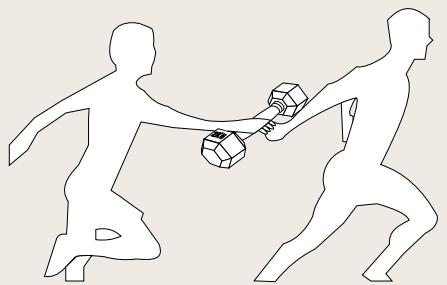


Micro AEIOU

The Observable Specifics

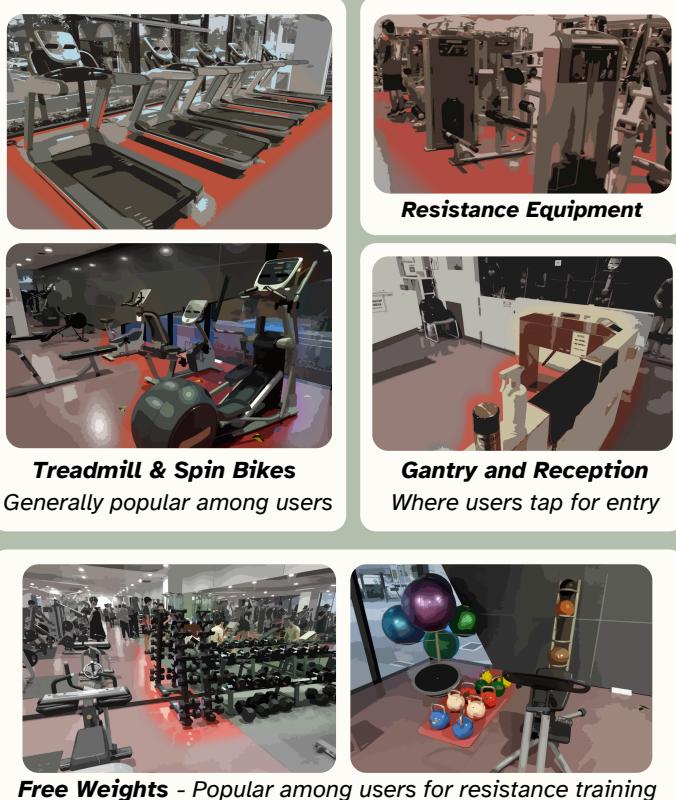
Activities

- 1) Gym goers **scan their pass** for entry.
- 2) Individuals **store their possessions in a locker** for security. Those with bulky items might leave them on the floor beside the lockers.
- 2a) Some individuals begin their workout by **stretching**.
- 3) Novices typically head for the **closest or most familiar machine** to begin their workout.
- 4) Users set up their equipment by **adding weights**.
- 5) Individuals **commence their respective workouts**.
- 6a) People may **get distracted** (generally by social media on their phones).
- 8) Some gym goers use their phones to **record their progress**.
- 8b) Certain individuals complete their session with a **cooldown**.
- 10) People **retrieve their items** from the locker.

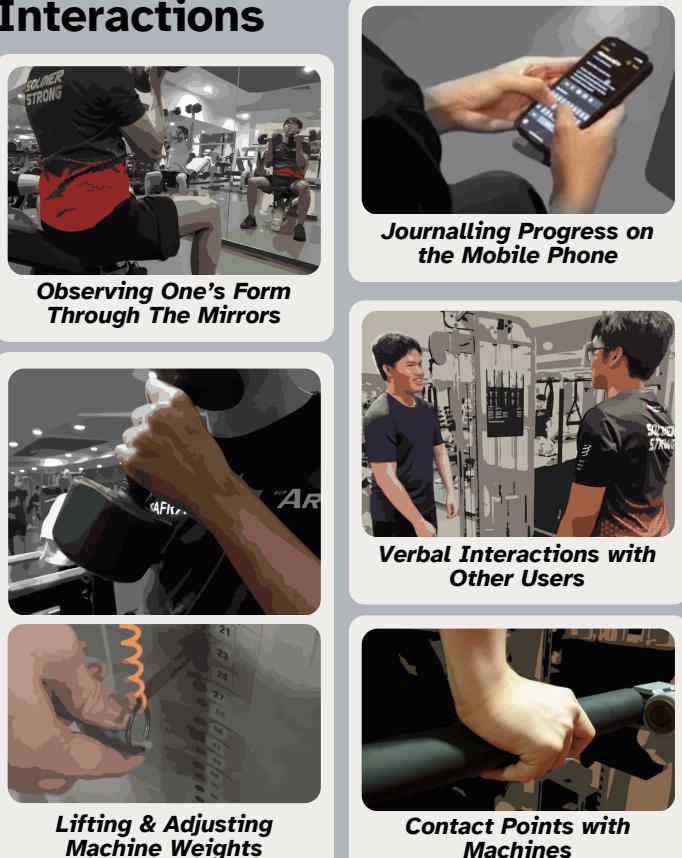


Refer to Activity Map for Illustrated User Flow

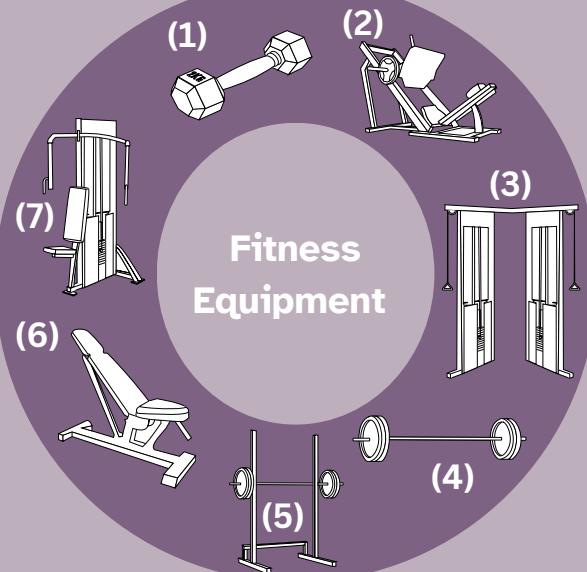
Environment



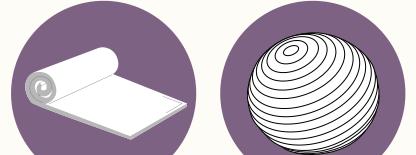
Interactions



Objects



Stretching Equipment:



Fitness Equipment:

- (1) Dumbbell
- (2) Leg Press Machine
- (3) Cable Machine
- (4) Barbell
- (5) Squat Rack
- (6) Adjustable Gym Bench
- (7) Pectoral Fly Machine

Users

Users dressed in **sportswear** populate the gym throughout the day. They comprise of two main groups:

- 1) **SUTD Students & Faculty** - Populates a majority of the gym and sees an increase in volume after lesson hours from 16:00 to 2:00.
- 2) **Public** - Numbers increase outside of working hours.

Additionally, they can be categorised according to a combination of 3 attributes. The most commonly seen attributes are highlighted in **red**.



SUTD

Age

- 20 - 30
- 30+

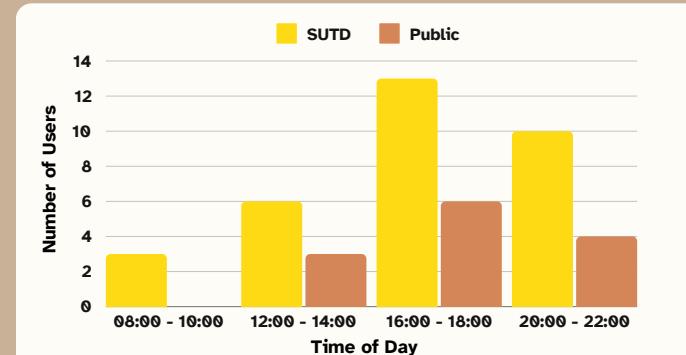
Usage Frequency

- First timer
- Once a week
- Many times a week

Public

Group Size

- Solo
- Pair
- Group



Kamarul Ridwan Bin Abdul Rahim
Cheah Hoe Teng
Chua Xing Han
Seah Min Jun
Song Wei Jie, Eddy



Demographics:

- Undergraduate student at SUTD

Behaviour Characteristics:

- Essentially **new** to fitness, besides training from National Service.
- Busy schedule with large numbers of project assignments, leaving him with **little time and energy** to research on gym related information.

The Beginner - Rahul, 22

"I've been wanting to start gymming to get into better shape. However, I have next to no knowledge on using gym equipment and I'm afraid to start. It would be very helpful if the gym has facilities for newbies to craft workout routines!"



Demographics:

- Master's degree student at SUTD

Behaviour Characteristics:

- Has **some knowledge** on gym and tends to gravitate towards **popular** exercises.
- Packed schedule filled with endless amounts of deadlines. However, she still carves time out for **occasional workouts** and **socialising with friends**.

The Gymbro - Chad, 34

"Working out is a habit that I established years ago. Back when I first started, I sustained a sprain injury on my arm. Little did I know back then that I was using the completely wrong form!"



Demographics:

- Senior Engineer at Rohde & Schwarz

Behaviour Characteristics and Pain Points:

- Has amassed **in-depth knowledge** of gymming and **fitness** over the years.
- Daily schedule includes a **morning gym session** before proceeding to work.