iDM² is a hardware accelerator to optimize your product development cycle

Join Our Briefing Session!
Mar 22 14:00
idea Lab@HKSTP

Training Modules 2019
Venue: HKSTP @Wheelock Gallery | Bi-weekly on Saturday

APRIL
1. Design for Market

MAY
3. Design & Modelling
4. Hardware & PCB

JUNE
5. Programming & Cloud
6. Manufacturers Face-to-Face

JULY
7. Manufacturing Planning
8. IP Strategy

HK$ 50K credit for prototyping
(eligible for HKSTP Incubees with 6 or more modules completed)

FREE of charge
HKSTP Incubees and Tenants are welcome

Programme Registration Deadline: Mar 29
Dongguan Factories Visit 3 days
Demo Day Sep 2019

Join Us
Common shortages of Entrepreneurs in hardware development

<table>
<thead>
<tr>
<th>Idea</th>
<th>Design</th>
<th>Manufacture</th>
<th>Market</th>
</tr>
</thead>
<tbody>
<tr>
<td>• No competitor</td>
<td>• Drive by passion</td>
<td>• Unfamiliar with Factories requirement</td>
<td>• Certification requirement</td>
</tr>
<tr>
<td>• Assume the Market needs exist</td>
<td>• Pursue for perfection</td>
<td>• M. SPEC</td>
<td>• IP strategy</td>
</tr>
<tr>
<td>• No Product Market Fit study (PMF)</td>
<td>• Over Engineering</td>
<td>• BOM</td>
<td>• Clients &amp; Market adoption</td>
</tr>
<tr>
<td>• No project planning</td>
<td>• Did not Consider Manufacturability</td>
<td>• Material</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• No Manufacturing Cost control</td>
<td>• Tolerance</td>
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<tr>
<td></td>
<td></td>
<td>• Process</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>• Test procedure</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Yield &amp; loss</td>
<td></td>
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<td></td>
<td></td>
<td>• QC</td>
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</tbody>
</table>
Production ready?

XXX Standard Product Requirement Specification
Heart rate sensor, body temperature sensor, GPS, Accelerometer, Vibrator and 2-way audio (Video Camera will be separately quoted)

Power
- powered through Rechargeable battery built-in and external
- Operating Time: at least 8 hours
- Lithium Polymer rechargeable battery, 2000+ mAh
- Charging via USB Micro B port

System
- Low power 16 bits Embedded System
- 16MB Flash, 512MBy whole RAM

2 Way Audio
- Frequency at 433MHz, 16 Channels
- 1.3 km communication distance
- Mic & Speaker

Heart Rate sensor
- Threshold triggered alert and report to server

Body temperature sensor
- Threshold triggered alert and report to server

Accelerometer
- Falls detection alert

Human Interfaces
- 2 Colors LED status ind
- Four buttons key pad
- Vibrator
Gap to bridge on the hardware journey

- **Who are we**
  - Product Market Fit
  - Survey tools
  - Project Planning

- **Design Tools**
  - User Experience
  - MVP
  - DFM

- **Accreditation**
  - IP Strategy
  - Market Identification

- **Prototyping**
  - Factories Jargon
  - Supply Chain

Idea

Design

Market

Manufacture
iDM² Hardware Accelerator - Scope of Content

**Nurture**
- Entrepreneurs in Hardware Project Management

**Accelerate**
- hardware development in terms of Cost and Time
- Prototype with MVP Design

**Deliver**
- DFM Workshops
- Science Park Facilities
- Partners support
- Fabrication Clinics
- GBA Supply chain
- Proof of concept by
  - GAA
  - Technologies from Science Park
  - IndustryConnect

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iDM²: idea·design·manufacture·market
Support you to overcome the design and manufacturing challenges

By the end of the journey you should be awarded with

- Target Market & Clients
- Better Project Planning
- Design Thinking & DFM
- Manufacturing Jargon
- MVP Design with Prototype
- GBA Supply Chain
Training and Seminars

2019

<table>
<thead>
<tr>
<th>Apr #1</th>
<th>May #1</th>
<th>Jun #1</th>
<th>Jul #1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design for Market</td>
<td>Design &amp; Modelling</td>
<td>Programming &amp; Cloud</td>
<td>Manufacturing Planning</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Apr #2</th>
<th>May #2</th>
<th>Jun #2</th>
<th>Jul #2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Design &amp; Certification</td>
<td>Hardware &amp; PCB</td>
<td>Manufacturer Face-to-Face</td>
<td>IP Strategy</td>
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Sessions host by speakers of leading organization

<table>
<thead>
<tr>
<th>3HK</th>
<th>Arrow</th>
<th>Aztech</th>
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<tbody>
<tr>
<td>AVP</td>
<td>CityU</td>
<td>HK Design Centre</td>
</tr>
<tr>
<td>HK Design Institute</td>
<td>HKPC</td>
<td>IBM</td>
</tr>
<tr>
<td>Infineon</td>
<td>Intertek</td>
<td>Magicube</td>
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<tr>
<td>Nicada</td>
<td>Nixon Peabody CWL</td>
<td>PDSTE</td>
</tr>
<tr>
<td>Toshiba</td>
<td>VDE</td>
<td>And many more...</td>
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</table>

~ 27 sessions (1.5-3 hours each) on 8 modules
Domain experts in various areas serve as coaches.
Offer clinic-based consultancy to the iDM² participants upon topics requested.

<table>
<thead>
<tr>
<th>Domain experts</th>
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</thead>
<tbody>
<tr>
<td>1. Market Research and Business Modelling</td>
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<tr>
<td>2. Product Design</td>
</tr>
<tr>
<td>3. Sensors Applications</td>
</tr>
<tr>
<td>4. Printed Circuit Board (PCB) Design</td>
</tr>
<tr>
<td>5. Programming &amp; Cloud</td>
</tr>
<tr>
<td>6. Design for Manufacture</td>
</tr>
<tr>
<td>7. Design for Assembly (DFA)</td>
</tr>
<tr>
<td>8. Tooling</td>
</tr>
<tr>
<td>9. Product Certification</td>
</tr>
<tr>
<td>10. Intellectual Property Protection</td>
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</tbody>
</table>
Intensive Manufacturing Workshops @ GBA

**Workshops**

On factories requirement

**Comment**

On manufacturing readiness

**Visit**

GBA Factories to learn strength & capabilities of individual manufacturers

**Matching**

Align with manufacturers for small batch prototyping

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**For Electronic**

- EBOM
- Electronic Schematic
- Circuit diagram
- Gerber file
- Stencil file
- Download Jig for s/f upload
- QC Spec

**For Workpiece**

- MBOM
- 3D CAD Drawing
- STL/STEP (for 3D printing)
- Industrial Design Drawing
- Assembly Guideline and Specification
- Test Jig & Test method
- QA/QC Spec

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**Supported by:**

AntClub
(蚁巢科技企业孵化器)

Songshan Lake, Hong Kong and Macau Project Conversion Service Center
(松山湖港澳项目转化服务中心)
## 2 Intakes of iDM² Hardware Accelerator Programmes per year

<table>
<thead>
<tr>
<th>Module 1</th>
<th>Module 2</th>
<th>Module 3</th>
<th>Module 4</th>
<th>Module 5</th>
<th>Module 6</th>
<th>Module 7</th>
<th>Module 8</th>
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### Intakes

- **Spring intake in March**
  - APR
  - MAY
  - JUN
  - JUL
  - SEP

- **Autumn intake in September**
  - SEP
  - OCT
  - NOV
  - DEC
  - APR
Strategic Partners

Industrial Partners

Supporting Organizations
<table>
<thead>
<tr>
<th>Date</th>
<th>Start Time</th>
<th>Location</th>
<th>Class</th>
<th>Content</th>
<th>In-Charge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mar 14, 2019</td>
<td>9:30-12:30</td>
<td>Open Area</td>
<td>Recruitment Period</td>
<td>Interview with each applicant</td>
<td>Whole Team</td>
</tr>
<tr>
<td>Mar 21, 2019</td>
<td>9:30-12:30</td>
<td>Idea Lab</td>
<td>IDP Briefing Session</td>
<td>KT Kensington</td>
<td>Whole Team</td>
</tr>
<tr>
<td>Mar 25-29, 2019</td>
<td>9:30-12:30</td>
<td>Idea Lab/ Open Area</td>
<td>IDP Recruitment Interview</td>
<td>KT Kensington</td>
<td>Whole Team</td>
</tr>
<tr>
<td>Apr 12-20, 2019</td>
<td>9:30-12:30</td>
<td>Idea Lab/ Open Area</td>
<td>IDP 1st Cohort Demo Day</td>
<td>KT Kensington</td>
<td>Whole Team</td>
</tr>
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**STAGE 1**

1. **Design for Market**
   - **HKSTP@Wheelock 1**
     - **Market Identification / Biz Modeling**
     - **Presentation**
     - **Research**
   - **HKPC**
     - **Product Design**
     - **Showcase (Design Project)**
     - **Product Accreditation**

2. **Product Design & Certification**
   - **HKSTP@Wheelock 2**
     - **Product Design**
     - **Product Development**
   - **HKPC**
     - **Design Tools**
     - **Prototype**

3. **Design & Modeling**
   - **HKPC**
     - **Design Tools**
     - **Product Modeling**
   - **Nokia**
     - **HDL Design**
     - **Multimodal**

4. **Hardware & PCB**
   - **HKSTP@Wheelock 4**
     - **Choices of Sensors**
     - **HDL Design**
   - **HKPC**
     - **PCB Design**
     - **PCB Manufacturing Process**

5. **Programming & Cloud**
   - **HKSTP@Wheelock 5**
     - **Connectivity**
     - **IoT Device Development**
   - **HKPC**
     - **Cloud Computing Services**
     - **Internet of Things**

6. **Manufacturer Face to Face**
   - **HKSTP@Wheelock 6**
     - **Manufacturers -1**
     - **Manufacturers -2**

7. **Manufacturing Planning**
   - **HKSTP@Wheelock 7**
     - **Design for Manufacture**
     - **New Product Development & Project Management**

8. **IP Strategy**
   - **HKSTP@Wheelock 8**
     - **Engineers & IP Intellectual Property**
     - **IP Strategy with Biz Model**

**STAGE 2**

- **Dec 8-13, 2019**
  - **3 Days**
  - **Dongguan**
  - **3 Days visit to Dongguan factories and workshops**
  - **Dr. YC Chau (Professor of CityU)**
  - **Dr. CK Cheung (TBD Group)**

- **Oct 2019**
  - **3 Days**
  - **Demo Day**
  - **Introduction of 3rd intake**
Enrollment of 2\textsuperscript{nd} cohort

Deadline Mar 29, 2019 (FRI)

Eligibility of 2\textsuperscript{nd} cohort
1. HKSTP Tenant
2. HKSTP Incubatee*
3. HKSTP Sci-Tech Challenge Candidates
4. FHKI STAR Programmes Candidates/ Graduates

* Incubatee with Full attendance of 6 out of 8 training modules will receive a proto-typing subsidy of HK$50,000 by reimbursement basis.

Some lesson will be opened for Sit-in participants with limited vacancies
Please stay tuned with our Facebook/
@ HKSTP Technology Incubation programmes
We're recruiting 10 - 12 Projects in each cohort (max 24 candidates)

For inquiry
iDM2@hkstp.org or call 2629 6970 Samuel Chui / 2629 7078 Hamlet Yu