

Ibtechar:

# **ICT Makerspace (Studio 5/6)**

**Continuation – Operations**

## **EduTech Designer Job description**

***Ibtechar for Digital Solutions L.L.C***

2023

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ICT Makerspace (Studio 5/6) Job Description	
Job Position: EduTech Designer	Last update: January 2023

About Ibtechar
<p>Ibtechar is an innovation development and management company, founded in 2011 that provides practical innovation solutions to institutions and businesses.</p> <p>We have a holistic approach in solving problems. Our process starts with asking the deep questions behind why?! and then manage with an agile mindset and a practical approach.</p> <p>Our approach is trusted to manage complex projects, where we work hand-in-hand with our clients. Our understanding of the context and Global trends enable us to deliver impactful results.</p> <p>Today Ibtechar has a solid rapport of clients that cover a broad spectrum of industries and entities from Government, Oil &amp; Gas, Defense, Energy, public and private sectors.</p> <p>Ibtechar has managed and operated the ICT Makerspace (Studio 5/6) for 4 years since its inception in 2019, successfully meeting and exceeding objectives and indicators established by the client, even during a really challenging period such as the pandemic of COVID-19. Some of these achievements are the following:</p> <ul style="list-style-type: none"> <li>• 30 workshops per month</li> <li>• 80 summer camp</li> <li>• 16 Ramadan camps.</li> <li>• First digital fabrication lab in Qatar that provides online digital fabrication lessons.</li> <li>• Engagement of over 5590 Makers@Home</li> </ul> <p>For the extension of the project, we are actively seeking individuals from the Engineering and Desing disciplines interested in using their technical expertise, willingness to learn, and passion for working with youth to create and facilitate a wide range of 'making' and prototyping experiences, in addition to supporting the overall operation of the ICT Makerspace (Studio 5/6)</p>

About ICT Makerspace (Studio 5/6) Continuation – Operations
<p>Within the Digital Skills for Youth initiative, the Ministry of Communication and Information Technology aims to equip Qatar's future workforce with world-class digital skills such that they are equipped and prepared for the digital challenges of a future workplace. Thereby, and in alignment with TASMU, the project aims at providing the youth with knowledge &amp; skills in digital fabrication and emerging technologies by triggering a mindset shift in the youth from consumer to creator.</p> <p>ICT Makerspace (Studio 5/6) currently provides different types of technology and digital skills related events for children and teenagers from the age of 7 to 18 including pop-up sessions, engineering design challenges, semesters &amp; camps, open days and online workshops. And the new phase of the project (ICT Makerspace Continuation – Operations) aims to provide the required operational capabilities to continue and extend the ongoing work and efforts of the existing Studio 5/6 program that was realized as part of the recently launched Digital Skills for Youth initiative within TASMU's Digital Skills initiative, the required equipment and hardware to run the operation and deliver the scope, as well as providing the required website maintenance and support, and lastly the marketing related services to reach out and to promote the program locally and globally.</p>

Purpose of the Role
<p>The EduTech Designer will use her/his technical knowledge, willingness to learn, and passion for working with youth to create and deliver making and prototyping experiences for learners of different age groups: youth aged (7-18), young adults (19-24), and educators, in addition to providing general support for the operation of the Makerspace.</p> <p>The EduTech Designer will work under the supervision of the Makespace Manager and Education Specialist to design, deliver, support, and facilitate daytime and evening programs in the following formats:</p>

- Pop-up sessions,
- Multi-week and multi-month programs,
- Engineering design challenges,
- Semesters & camps,
- Open days, and
- Online workshops

### Main Tasks & Responsibilities

- 1. Educational Content Development:**
  - Perform research to identify cutting-edge technologies, content, and approaches to engaging students in 'making', particularly in the areas of digital design and fabrication, electronics, virtual reality programming, and coding.
  - With the guidance and support of the Education Specialist, design educational program content in the Designer's technical specialization and other areas learned through self-study.
  - Design, build, program, and test learning activity projects and outputs.
  
- 2. Workshop and Training Delivery:**
  - Lead making activities including day-time, evening, and weekend programs
  - Collaborate with the Education Specialist in designing and delivering sessions as requested.
  - Supervise and support learners.
  - Perform program and event planning and logistics.
  
- 3. Communications & Outreach:**
  - Draft descriptions and promotional content for education programs in Arabic and English.
  - Collaborate with administrative staff to set up workshop registration.
  - Interact with students, teachers, school administrators, parents, and other external individuals and entities with inquiries about the makerspace and its programs.
  - Train and supervise volunteers.
  
- 4. Equipment, Maintenance and Safety:**
  - Contribute to the identification and sourcing of equipment and other technical and non-technical resources for educational programs.
  - Monitor the condition and operation of applicable equipment, components and materials as requested by the Project Manager and/or Education Specialist.
  - Maintain equipment reliability, and schedule preventive maintenance for the machines.
  - Perform maintenance and repair of equipment where skillsets are relevant
  - Ensure the makerspace Safety and Health Plan is implemented.
  - Provide instruction to users in the effective and safe operation of the fabrication machines and assess their ability to work safely.
  - Inspects the space to ensure it is a hazard-free environment.
  - Provide a safe environment of work, by assigning clear Safety and Hazard precaution signs.
  - Watches out for the safety of all users to protect them from entering hazardous situations.
  - Assures the makerspace facility and equipment are clean, safe, and ready for operation.
  - Assists in the operation and basic troubleshooting of machines and equipment.
  
- 5. Consultation and Technical Review:**
  - Evaluate the quality of student engineering projects.
  - Provide qualitative feedback to learners on making activities and outputs.

### Knowledge, Skills and Key Attributes

#### Required Minimum Qualifications:

- Fab Academy Diploma or similar.
- Bachelor's Degree or higher in Product Design, Industrial Design or Architecture.
- At least five (5) years of experience in Fabrication Machines (CNC-Machine, Laser cutter, 3-D printers), and/or Electronics, and/or Computer programming, and/or Game development and Web Development.
- At least three (3) years of experience in training, instructional, and/or curriculum development.

**Desired Qualification:**

- Five (5) years of experience in Fablabs/Makerspace, and/or Manufacturing Lab.
- Five (5) years of experience in teaching and mentoring different age groups.
- Experience in operating digital design tools including Laser Cutters, 3-D printers, CNC Machines, and Vinyl Cutters.
- Experience working with digital design and fabrication software including 2D and 3D modeling softwares.
- Experience in engineering, electronics and/or computer programming, and/or game development such as Unity.
- Experience working with various materials including wood, metal, and plastics in a prototyping or manufacturing environment is a plus.
- Proven experience and interest in the art of making, sharing of skills, knowledge, and obvious enthusiasm for both.

**Required Skills:**

- Strong verbal and written communication skills.
- Bilingual in spoken and written Arabic and English.
- Commitment to excellent internal and external customer service.
- Ability to create written materials.
- Ability to design new objects using available design software.
- Preferred working knowledge of digital fabrication process and equipment such as:
  - Laser cutter
  - Vinyl cutter
  - CNC milling
  - Vacuum forming
  - Digital sewing
- Use of software in digital manufacturing processes, such as:
  - Solidworks
  - Autodesk Fusion 360
  - Rhinoceros
  - Adobe Illustrator
  - Adobe Photoshop
  - Corel Draw
- Ability to Maintain safety and a healthy environment for the workspace.

**Key Attributes:**

- A strong interest in teaching and learning / the education sector
- Enthusiasm
- Initiative
- Intellectual curiosity and willingness to learn
- Adaptability

**Employment Type**

This role is a full-time / one year initial contract with the possibility of being renewed for 2 more years.