

Career Action Plan

Name: Mariam Rabie Elghzaly Track: Microsoft Machine Learning

Top 3 interests for your career	<ol style="list-style-type: none"> 1- Robotics & Embedded Systems 2- Creative Tech & Practical Innovation 3- Auto Motions
Top 3 current skills	<ol style="list-style-type: none"> 1- Creative thinking 2- Planning & Self-Learning Discipline 3- Programming & Problem Solving
Skills to be developed	<ol style="list-style-type: none"> 1- Embedded Systems & Low-Level Programming 2- Applied Machine Learning for Embedded or Real-Time Systems 3- Control Systems & Mechatronics
Career SMART goals	<p>Build and Document an Embedded Robotics Project</p> <ul style="list-style-type: none"> • Specific: Design a mobile robot that follows a path or avoids obstacles using sensors (IR, ultrasonic) and microcontroller (e.g., Arduino or STM32). • Measurable: Functional prototype + GitHub repo + PDF report. • Achievable: I already have programming + electronics knowledge and a study plan for embedded systems. • Time-bound: Complete in 10 weeks (by October 15, 2025).
Resources	References online courses and self-learning
Action steps	<ol style="list-style-type: none"> 1. Learning machine learning 2. Complete C programming & basic embedded course 3. Learn and implement PID control on a simple robot 4. Start integrating sensors (IR, ultrasonic) on microcontroller 5. Document all progress on GitHub + write PDF report

Challenges	<p>Limited access to hardware/tools at times</p> <p>Balancing DEPI workload with self-learning</p>
Solutions	<p>use online simulators (TinkerCAD, Proteus) when hardware is unavailable</p> <p>Block weekly time in schedule for robotics study</p> <p>Join online forums (Reddit, Stack Overflow, IEEE groups) for debugging help</p>

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Comments:
