

**FANUC**

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*Assessment Blueprint*

*FANUC Certified Robot Technician*

*Test Code: 8586 / Version: 01*



## ***CUSTOMIZED ASSESSMENT BLUEPRINT***

### **FANUC CERTIFIED ROBOT TECHNICIAN**

**Test Code: 8586**

**Version: 01**

#### ***Specific Competencies and Skills Tested in this Assessment:***

##### **Robot Safety and Safety Devices**

Demonstrate knowledge of internal robot safety devices and functions  
Demonstrate knowledge of external safety devices

##### **Basic Robot Operations Using Teach Pendant**

Master and re-master robot  
Setup robot coordinate frames

##### **Basic Robot Programming**

Create various robot programs  
Program non-motion logic structures

##### **Program File Manipulations**

Backup individual and system files  
Restore individual and system files  
Perform image backup and restore

##### **Robot Integration**

Establish communication to peripheral devices  
Configure Input/Output  
Set end-of-arm tool parameters

##### **Advanced Operations and Programming**

Apply advanced program functions and options  
Program auxiliary axis  
Program advanced motion and non-motion statements

***FANUC Certified Robot Technician (continued)***

**Troubleshoot System Errors**

Troubleshoot configuration errors

Troubleshoot Dual Check Safety (DCS) errors

**iRVision**

Identify iRVision application requirements

Demonstrate knowledge of iRVision components

Demonstrate knowledge of iRVision system hardware setup

Identify iRVision processes

Determine and establish frame locations

Perform iRVision setup

Perform 2D Calibration (automatic and manual)

Perform Error Proofing process

Apply 2D Vision process

Program instructions for 2D Vision

***FANUC Certified Robot Technician (continued)***

**Written Assessment:**

Administration Time: 3 hours and 30 minutes

Number of Questions: 220

***Areas Covered:***

11%	Robot Safety and Safety Devices
6%	Basic Robot Operations Using Teach Pendant
16%	Basic Robot Programming
6%	Program File Manipulations
11%	Robot Integration
13%	Advanced Operations and Programming
8%	Troubleshoot System Errors
29%	iRVision

***Sample Questions:***

Which of the following means "lock out?"

- A. allowing no one to operate the equipment
- B. enabling the flow of energy from the power source to the equipment
- C. placing a tag on the power source to warn coworkers and others
- D. connecting the power to the energy source

What is the most common reason to master a robot?

- A. It will not follow directions.
- B. The robot is old.
- C. Battery backup power is lost while the robot controller is turned off.
- D. The robot needs to be configured as a secondary unit.

Where is position register (PR[]) data valid?

- A. within the current program only
- B. globally throughout the controller
- C. nowhere, position registers are an instruction and therefore do not have data
- D. within a maximum of two programs

When backing up files to a memory device,

- A. all files are erased from the robot directory
- B. all files are added to the root directory, and none are deleted
- C. you can backup to a micro-SD card
- D. you must hold the ENTER key

***FANUC Certified Robot Technician (continued)***

To enter the payload, you must access which screen?

- A. System config screen
- B. Motion screen
- C. DCS settings
- D. Data screen

What are valid frames used for offset?

- A. Jog Frame and World Frame
- B. User Frame and Tool Frame
- C. Joint Frame and Tool Frame
- D. Robot Frame and World Frame

A software error may show because of

- A. an E-stop or overtravel
- B. a broken cable or tooling
- C. incorrect program data
- D. unplugged robot

A shorter focal length lens provides a

- A. wider field of view
- B. narrower field of view
- C. higher resolution
- D. lower resolution

The use of a high-resolution GigE camera

- A. requires 64 M DRAM
- B. requires special mounting brackets
- C. is for x-ray vision only
- D. is for color applications only

Offset limits can be set to

- A. ignore offset if within specified range
- B. ignore offset if outside specified range
- C. ignore all offsets
- D. activate all offsets