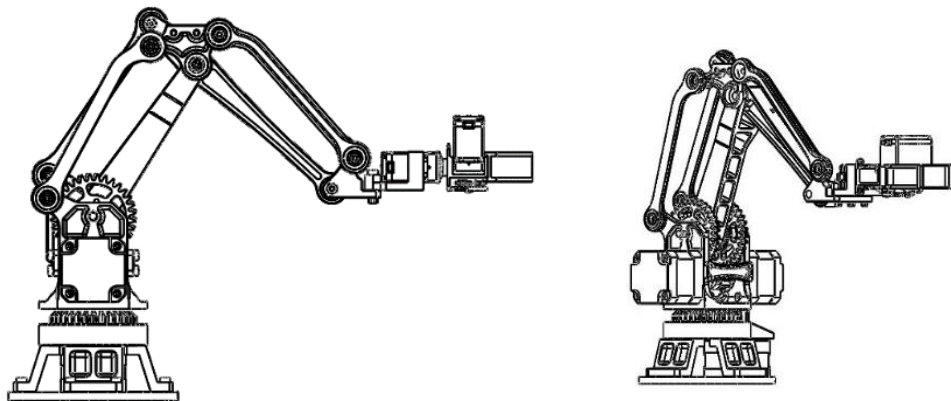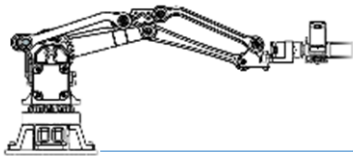# i-Arm

User Manual

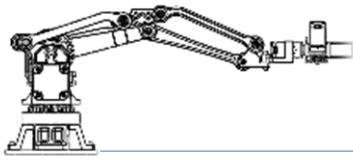IR-0010807   V1.0.0   Date: 13/09/2018

i-Arm User Manual, Instructions and Precautions

- Please refer to the user manual provided with the product before using.

- **Precautions**

  - **Power ON**: Please align the i-Arm to neutral position by moving the rail 1 and rail 2 to the 0th Position and bringing the fore arm and the rear arm to their appropriate position. Connect the USB cable to your PC. Now, power ON the i-Arm by pressing the ON/OFF Switch attached to the rail 2 column. (Please make sure the power cord is attached properly.)

  - **Power OFF**: Bring i-Arm to Home position using the UI. Power OFF the i-Arm by using the ON/OFF Switch attached to the column of rail 2. Now, disconnect the USB cable from the PC.

  - Please make sure the UI is installed in the computer properly and connect the USB cable to your PC before switching on the i-Arm.

  - If the i-Arm is unaligned with the commands given by the PC, shut down the entire setup. Bring the arm to the home position and restart the entire process.

 - Always make sure the i-Arm is manually moved only when the Power is switched off.

- **Important Safety Notes:**

  - Always start the arm from the Home Position.

  - Make sure the Debit and Credit Cards are placed in their appropriate Spaces.

  - Do not place your hands in the work space of i-Arm. Not doing so runs the risk of bruising and /or pinching.

  - The motor temperature raises during continuous operations; it is always advised to place the i-Arm in an air conditioned room for continuous operations.

  - The fore arm and the rear arm will tend to fall once the power has been shut down, so make sure you slide it gradually.

- i-Arm Control software can be installed in computers running on windows OS. For updating the configurations of the machine, please use Microsoft SQL Server Management – 2017.(The Installation of the UI will be handled by the executives from Inov Robotics Pvt. Ltd. during the delivery of the i-Arm).
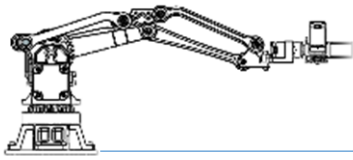
SPECIFICATIONS		
Axes	5	
Payload	350g	
H-Reach	360mm	
Robot Mass	1 kg (approx.)	
Mounting	Desktop	
Degree of Freedom	5	
Repositioning Accuracy (mm)	±0.05mm	
Repeatability	>350 actions	
Input Voltage	230V	
Operating Voltage	12V	
Motor Range	Axis 1 (Rotation)	±220°
	Axis 2 (Fore arm)	±60°
	Axis 3 (Rear arm)	±60°
	Axis 4 (End Effector)	±180°
	Axis 5 (Rail)	Linear Motion
Motor Speed	Axis 1	120°/s
	Axis 2	120°/s
	Axis 3	120°/s
	Axis 4	120°/s
	Axis 5	240°/s
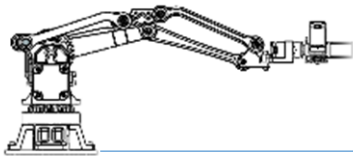
i-Arm Installation Instructions.

Requirements :   *OS* : Microsoft Windows vista and later.

Softwares : Windows SQL Server Management 2018.

You can directly download the i-Arm Setup from Inov Robotics GitHub Directory.

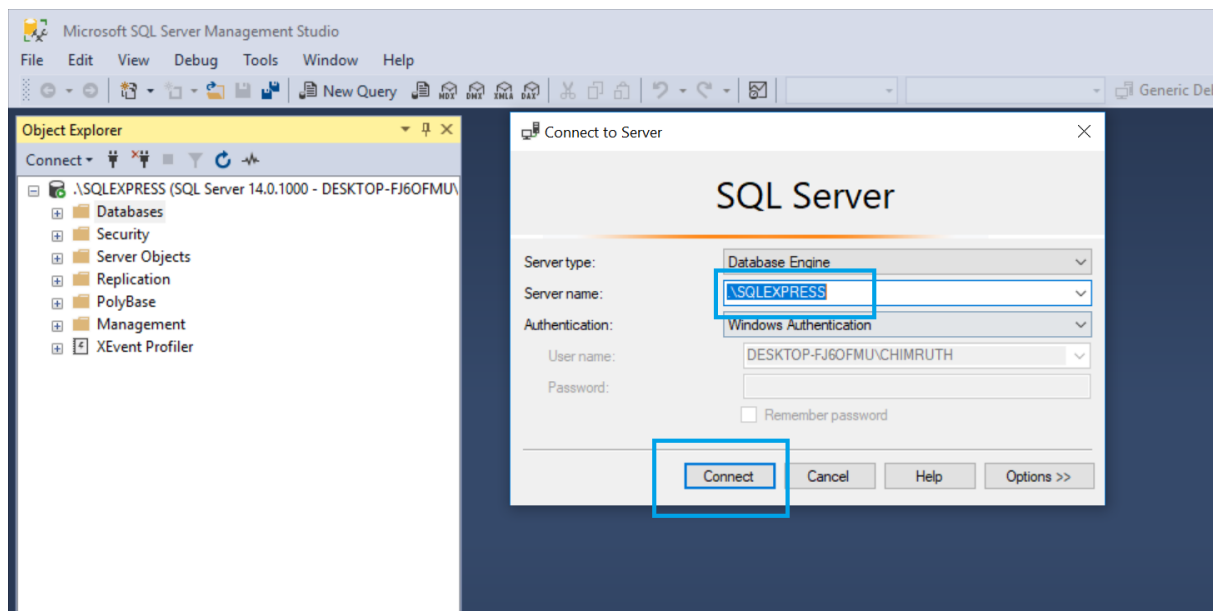➢ To Install the software, please follow the Instructions.

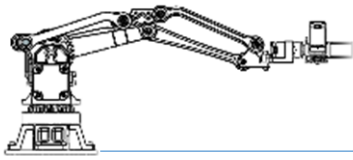| Add the Database to SQL Server Management.	Install i-Arm Control Software.	Check if the equipment works properly.

Add Database to SQL Server Management

1) Download and Install SQL Server Management 2017 from Microsoft download page.

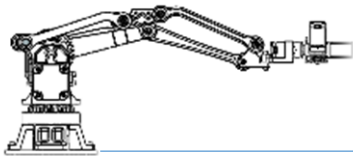2) Enter the Server Name **.\SQLEXPRESS** and click *Connect*.

3) Right click on the *Database* option present under the Object Explorer tab and click *Attach* to add the database to the SQL Server Management.
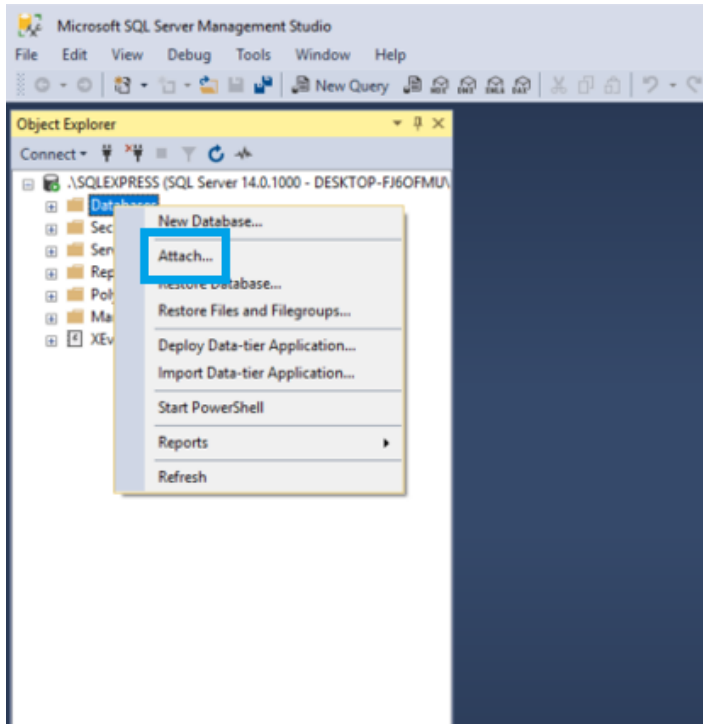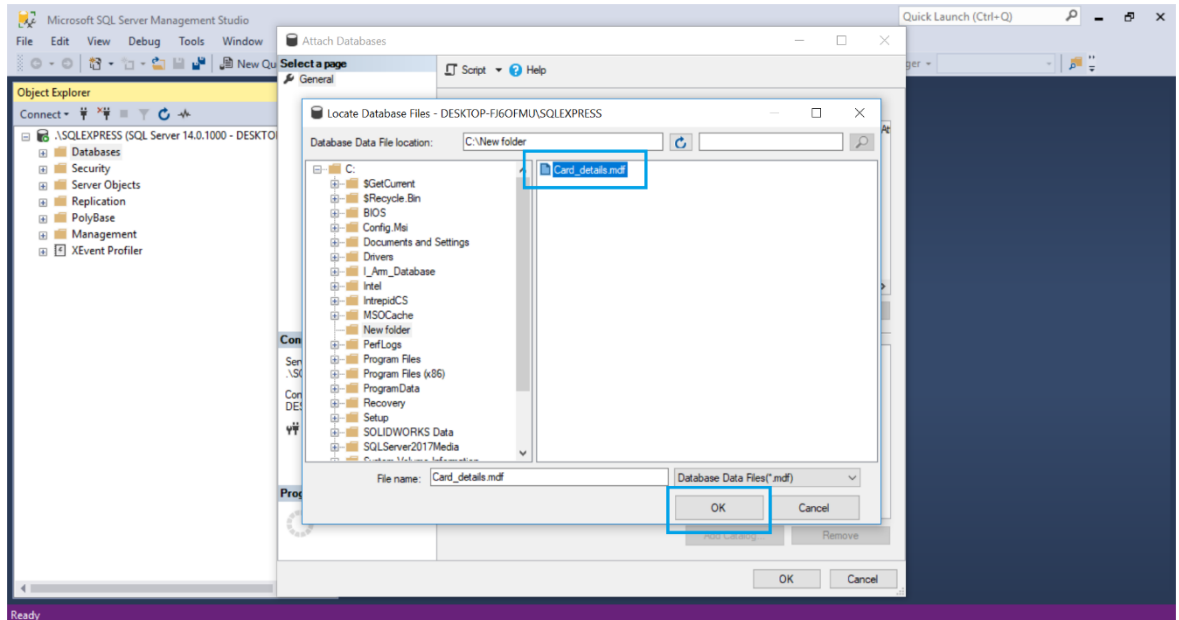

4) Click on the *Add* button to attach the database to the SQL Server.
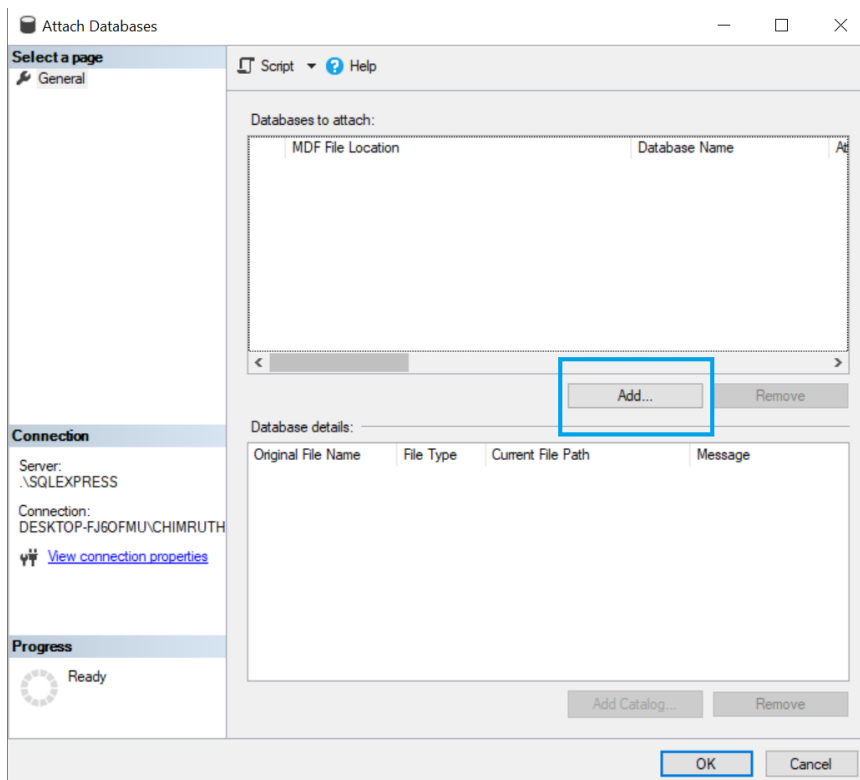
5) Navigate to i-Arm Setup folder and select the Card_details.mdf file. Click *OK* to add the database to the SQL Server. Both the .mdf and the .ldf files will be added.
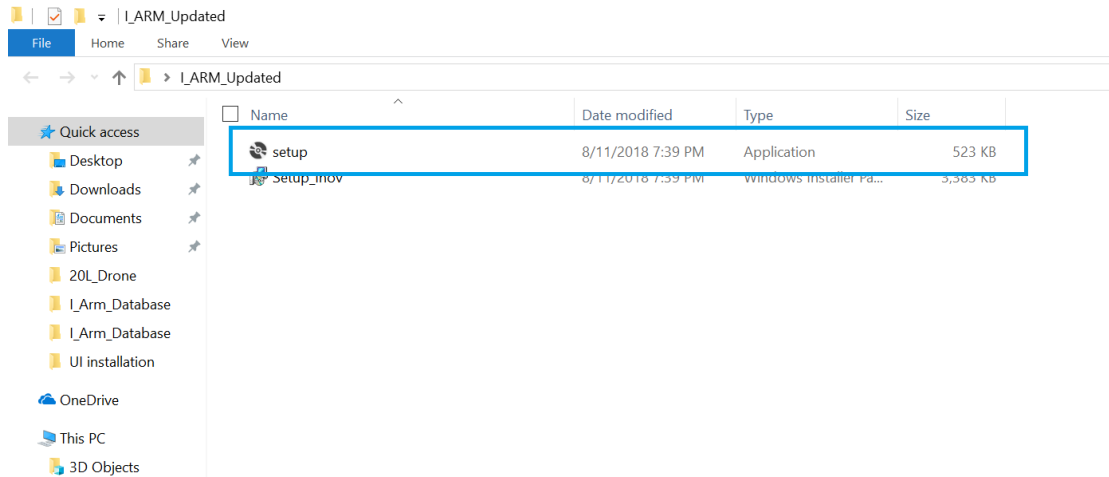

6) Verify if the .mdf and .ldf files are added and press *OK* to save the database. The card details database has been added to the SQL Server and can be accessed by the UI to carry out the actions.
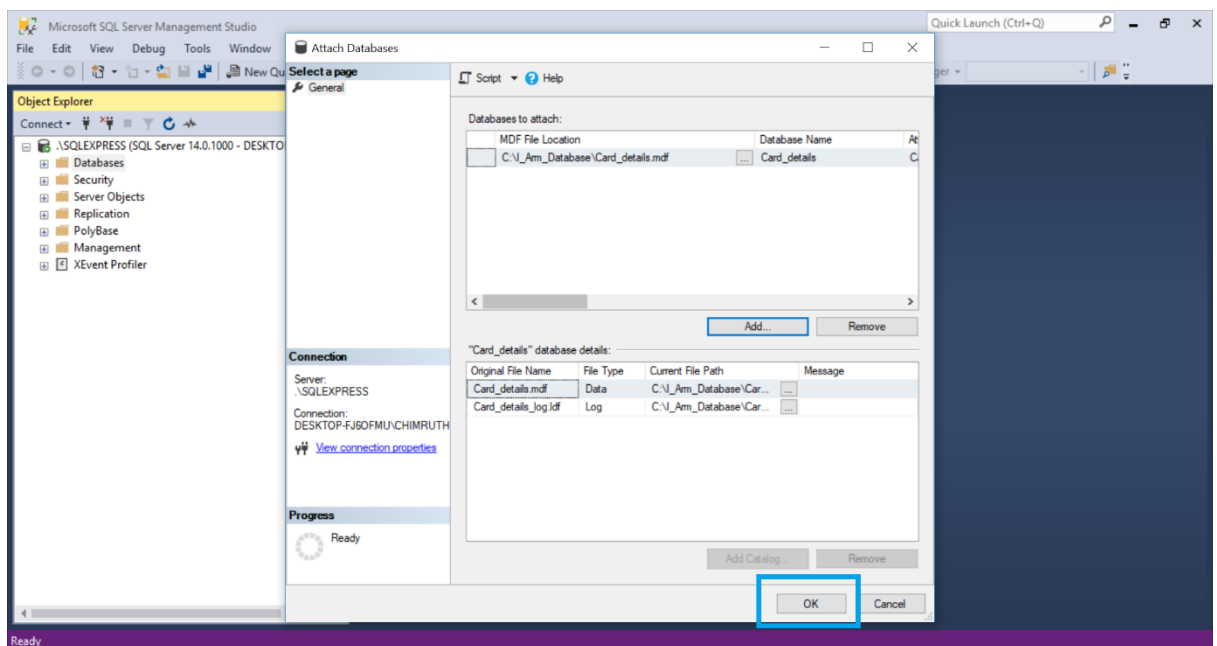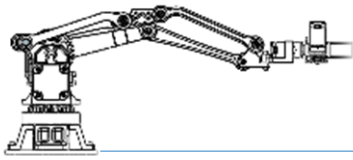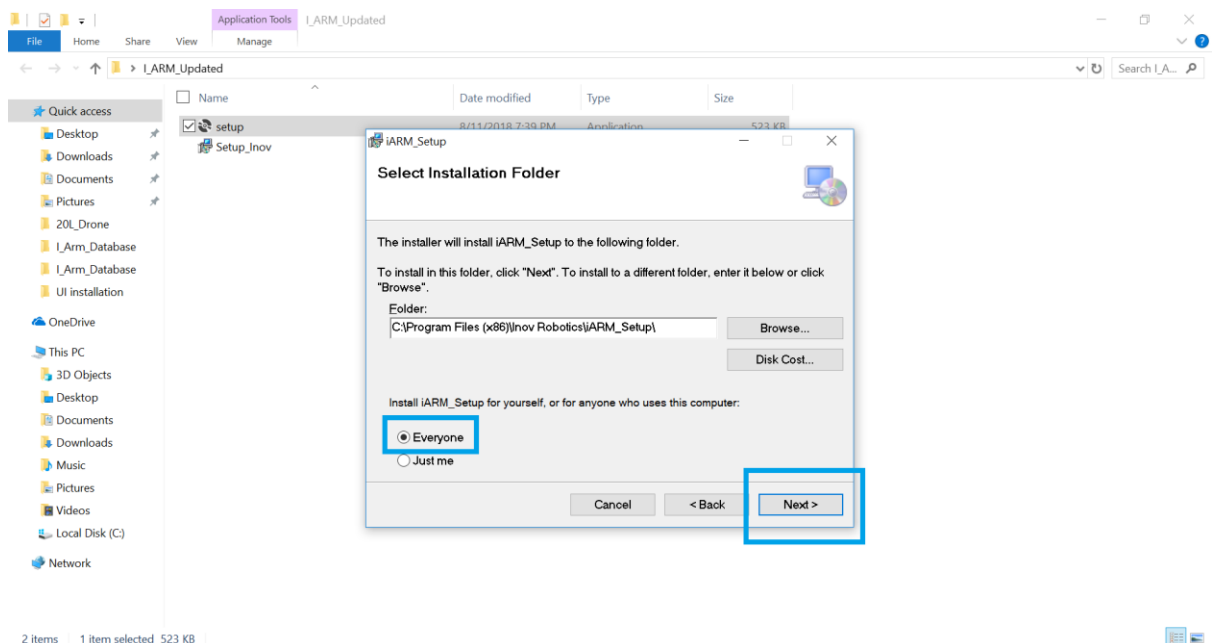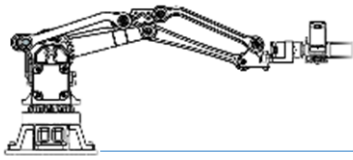
Install i-Arm Control Software.

1) Open the Folder containing the i-Arm Control software. Right click on the Setup icon and press Run as administrator to begin the Installation.
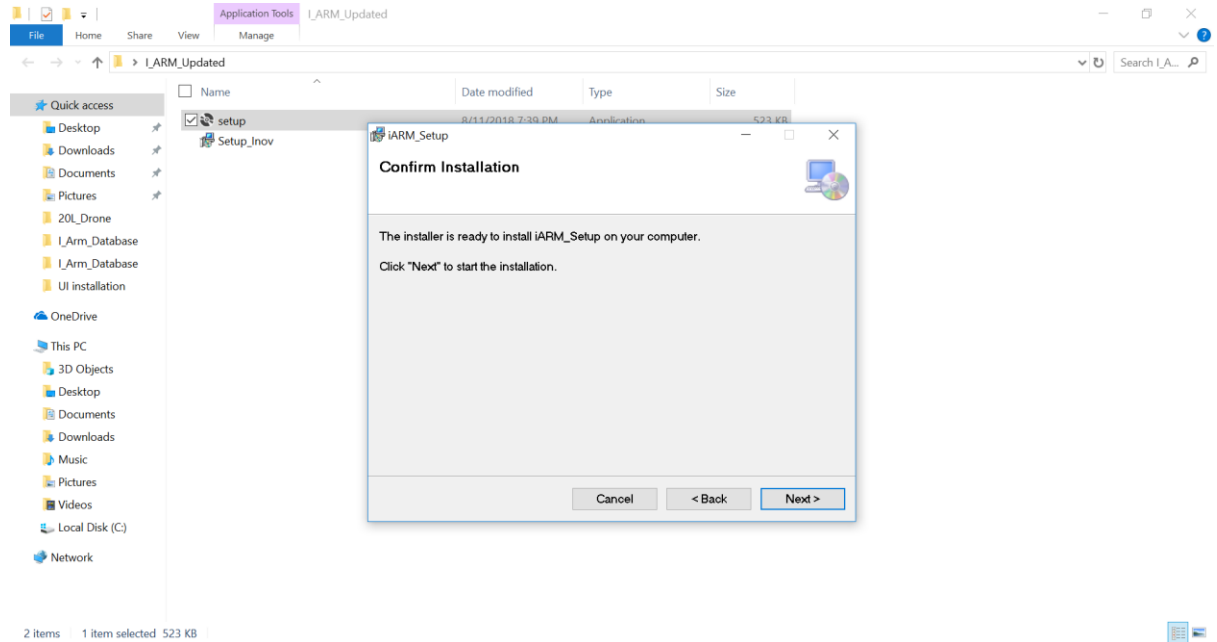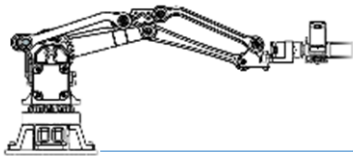

2) Press next to enter the second menu. Use the Browse option to select the folder for installing the software. Mark the accessibility to Everyone and press next to carry out the next step.

3) Click next to start the installation. Once the installation has been completed, Press Close to complete the installation.
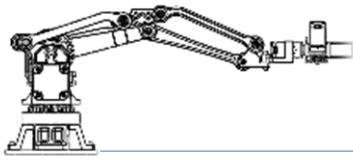
Check if the equipment works properly

1) Once the Installation has been completed, Double click on the i-Arm application in the desktop to open the software.

2) Select the COM Port using the drop down menu and Click CONNECT to enter the i-Arm Control Software.
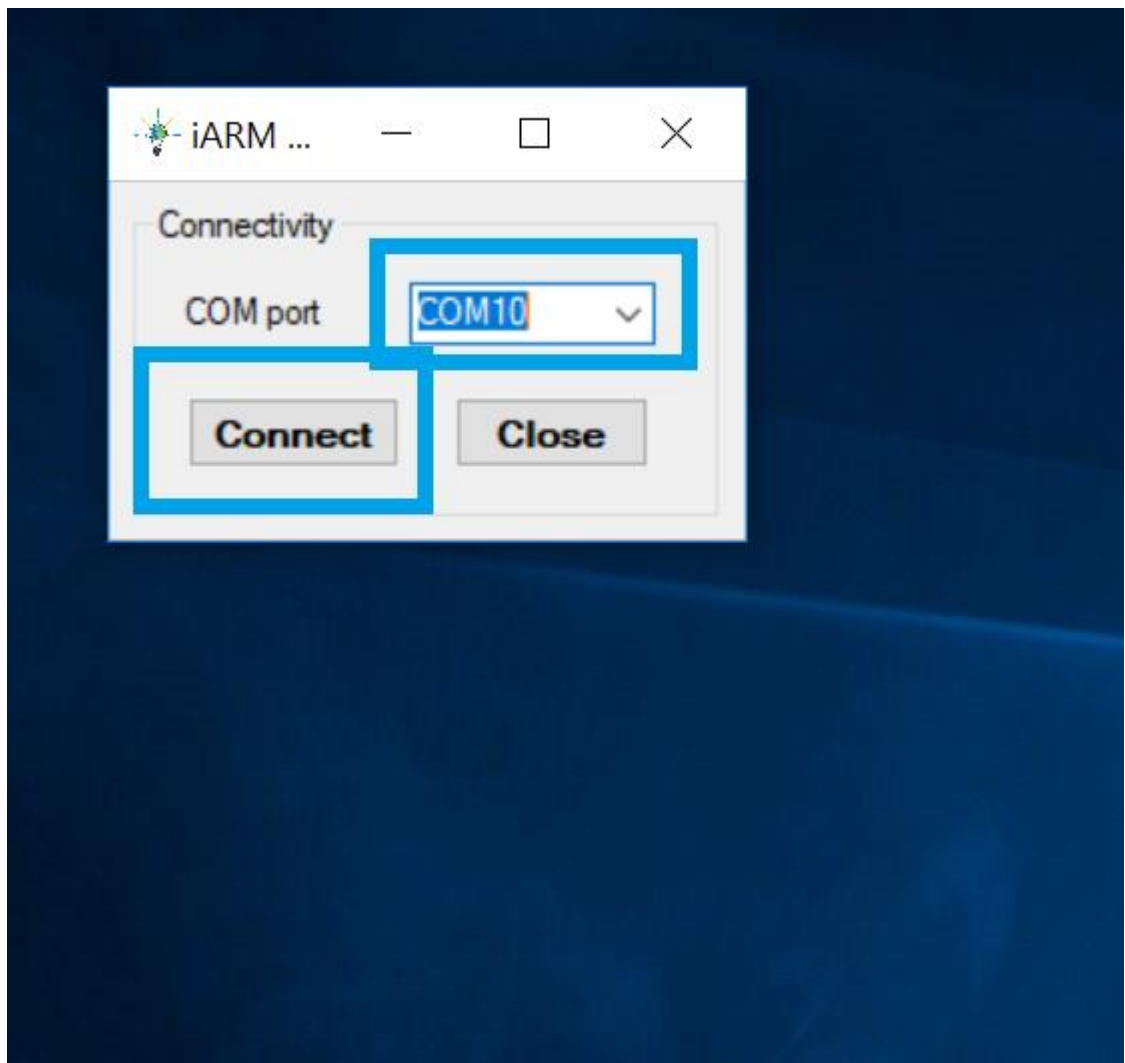
3) Once the Connect button has been pressed, the UI will be opened. The Card No. should be selected to process appropriate card slot and the type of operation are selected using the drop down menu.
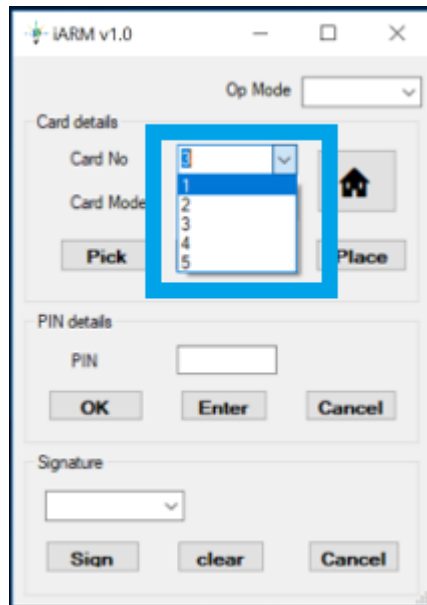
4) Use the Home button to bring the i-Arm to Home Position. This will bring the arm to its home position, now you can carry out the actions.

More Details.

- For More Information Visit www.inovrobotics.com.

- For any details of the product or any improvement contact us at support@inovrobotics.com.

- Further questions info@inovrobotics.com.

- Download Centre: https://github.com/InovRobotics/i-Arm-Studio.
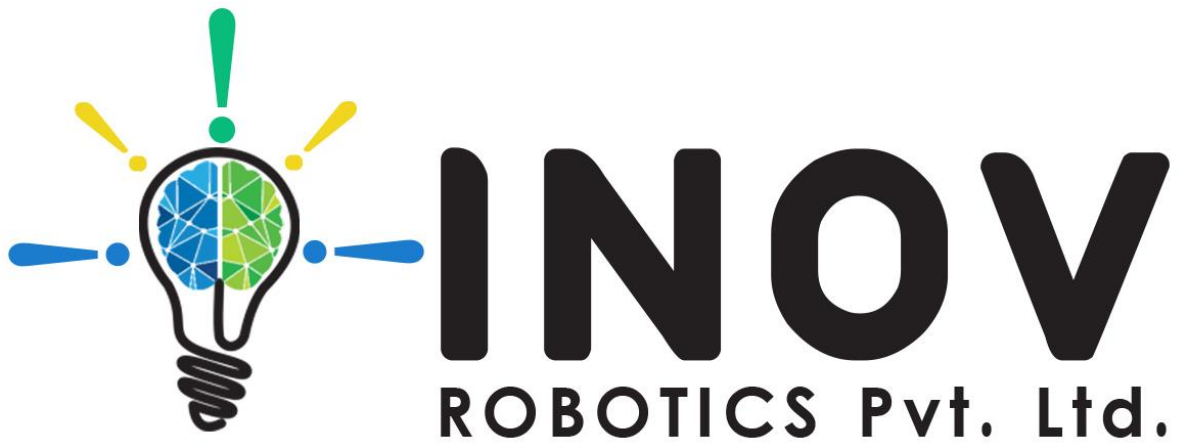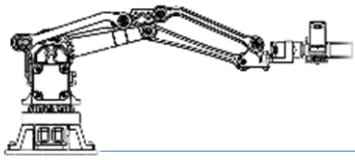
Inov Robotics Pvt. Ltd.

Website: www.*inovrobotics.com*

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