

Installation Guide for PiVPlotter on Raspberry Pi 4

1. Install Git:

```
sudo apt update
```

```
sudo apt install git
```

2. Install Java:

(Follow the instructions from this [YouTube video](<https://www.youtube.com/watch?v=fl-4o4ri8pc>))

```
sudo apt install openjdk-17-jdk
```

3. Install Maven:

```
sudo apt update
```

```
sudo apt install maven
```

```
mvn --version
```

4. Download the files from GitHub:

```
git clone https://github.com/RevoutIT/pivplotter.git
```

5. Go to the downloaded directory and modify the `pom.xml` file as follows:

```
<project xmlns="http://maven.apache.org/POM/4.0.0"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="http://maven.apache.org/POM/4.0.0 http://maven.apache.org/xsd/maven-4.0.0.xsd">
  <modelVersion>4.0.0</modelVersion>
  <groupId>de.revout.pi.vplotter</groupId>
  <artifactId>PiVPlotter</artifactId>
  <version>0.0.2-SNAPSHOT</version>
  <name>PiVPlotter</name>
  <description>V-Plotter mit Raspberry Pi</description>
```

```
<repositories>

  <repository>

    <id>central</id>

    <url>https://repo.maven.apache.org/maven2</url>

  </repository>

</repositories>
```

```
<dependencies>

  <dependency>

    <groupId>com.pi4j</groupId>

    <artifactId>pi4j-core</artifactId>

    <version>1.3</version>

  </dependency>

  <dependency>

    <groupId>com.pi4j</groupId>

    <artifactId>pi4j-device</artifactId>

    <version>1.3</version>

  </dependency>

  <dependency>

    <groupId>com.pi4j</groupId>

    <artifactId>pi4j-gpio-extension</artifactId>

    <version>1.3</version>

  </dependency>

</dependencies>
```

```
<build>

  <plugins>

    <!-- Java Compiler -->

    <plugin>

      <groupId>org.apache.maven.plugins</groupId>
```

```

<artifactId>maven-compiler-plugin</artifactId>

<version>3.8.1</version>

<configuration>
    <source>8</source> <!-- Minimum Java Source Version -->
    <target>8</target> <!-- Minimum Java Target Version -->
</configuration>
</plugin>

<!-- Maven Assembly Plugin -->
<plugin>
    <artifactId>maven-assembly-plugin</artifactId>
    <configuration>
        <finalName>PiVPlotter</finalName>
        <appendAssemblyId>false</appendAssemblyId>
        <descriptorRefs>
            <descriptorRef>jar-with-dependencies</descriptorRef>
        </descriptorRefs>
        <archive>
            <manifest>
                <mainClass>de.revout.pi.vplotter.main.PiVPlotter</mainClass>
            </manifest>
        </archive>
    </configuration>
    <executions>
        <execution>
            <phase>package</phase>
            <goals>
                <goal>single</goal>
            </goals>
        </execution>
    </executions>

```

```
</plugin>
</plugins>
</build>
</project>
```

6. While in the `pivplotter` directory, run the following command:

```
mvn clean install
```

7. Verify that the PiVPlotter program is working:

```
java -jar /home/admin/Downloads/pivplotter/target/PiVPlotter.jar
```

8. Add a shortcut to the PiVPlotter application in the menu:

```
nano ~/.local/share/applications/PiVPlotter.desktop
```

In the nano editor, enter the following configuration:

```
[Desktop Entry]
```

```
Version=1.0
```

```
Name=PiVPlotter
```

```
Comment=V-Plotter controlled with Raspberry Pi
```

```
Exec=java -jar /home/admin/Downloads/pivplotter/target/PiVPlotter.jar
```

```
Icon=/home/admin/Downloads/pivplotter/icon.png
```

```
Terminal=false
```

```
Type=Application
```

```
Categories=Utility;Application;
```

```
Path=/home/admin/Downloads/pivplotter/
```

Press `Ctrl + O` to save the file, and then `Ctrl + X` to exit the nano editor.

Add the icon file at `/home/admin/Downloads/pivplotter/icon.png`