

# INSTRUCTION GUIDE

## *YOMPER 2.6 – SERVICE MANUAL*

*Removable electric drive unit for wheelchairs*



V1.2 06/05/2022

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**YOMPER 2.6 – Service Manual**
**1. YOMPER**

This Service Manual is intended for qualified authorized dealers only.

**1.1 REPLACING THE TIRE OR AIR CHAMBER**
**1.1.1 Reference**

Part numbers

Tire	1005193
Air Chamber	1005211

**1.1.2 Disassembling the motor**

1. Remove the cable support.



2. Remove nut covers.

3. Loosen both nuts.



4. Remove the motor from its housing.



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**1.1.3 Disassembling the tire and air chamber**

1. Deflate the air chamber.
2. Press down on the outer flange of the motor to lower it.
3. Using a flathead screwdriver, pry the circlip near the valve.



4. Remove the motor flange.
5. Remove the tire and the air chamber.



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**1.1.4 Installing the tire and air chamber**

1. Place the air chamber inside the tire.
2. Insert the assembly onto the motor, ensuring that the valve is positioned correctly.
3. Install the motor flange.
4. Install the circlip on the motor: Place the circlip on the motor and push down on both the flange and the circlip simultaneously to position it in its groove.
5. Reassemble the motor to the Yomper: Insert the motor onto the Yomper; tighten the nuts; place the caps; and secure the cable support.
6. Inflate the tire to 2 bars (29 PSI).


**1.2 REPLACING THE MOTOR**
**1.2.1 Reference**

Part number

Motor Set	1005198
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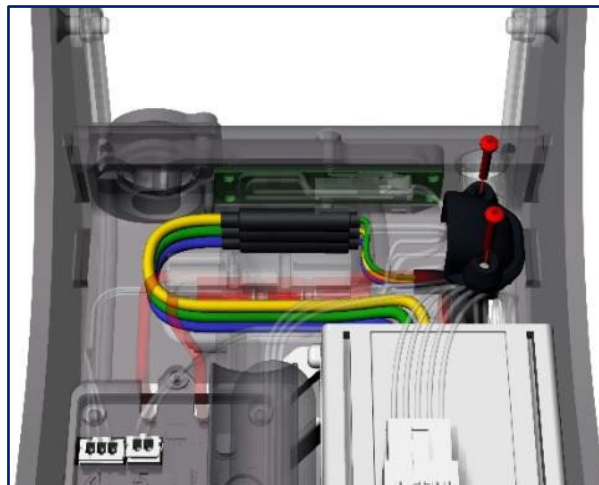
**1.2.2 Electrical part**

1. Turn off the Yomper.
2. Open the electrical compartment.
3. Disconnect plug 4 from the PCB.



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4. Disconnect the 3 motor/controller wires (blue, green, yellow).
5. Unscrew the grommet to remove the 3 motor wires.
6. Follow steps in [section 1.1.2](#).
7. Insert 2 spacers on the motor shaft on the cable side and 3 spacers on the opposite side.
8. Insert and secure the motor onto the Yomper.
9. Insert the cable into the grommet.
10. Connect the 3 motor/controller wires according to the table below.



Note that the wiring varies depending on the version of the motor.



<i>Controller</i>	<i>Old motor</i>	<i>New motor</i>
<b>Blue</b>	<b>Blue</b>	<b>Blue</b>
<b>Yellow</b>	<b>Green</b>	<b>Yellow</b>
<b>Green</b>	<b>Yellow</b>	<b>Green</b>

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11. Connect plug 4 to the PCB.
12. Secure the cable support.
13. Close the electrical compartment.



## 1.3 REPLACING THE PCB

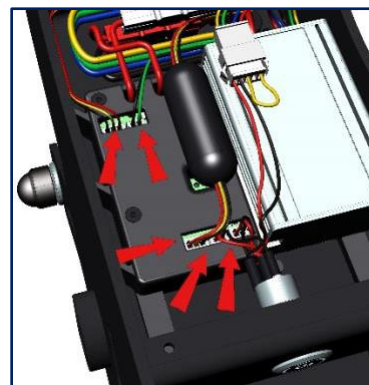
### 1.3.1 Reference

Part number

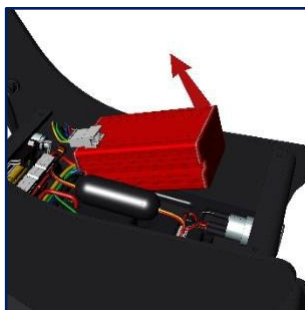
Yomper PCB	1005204
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### 1.3.2 Disassembly

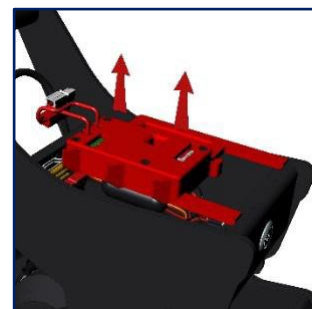
1. Turn off the Yomper.
2. Open the electrical compartment.
3. Disconnect the cables connected to the PCB.



4. Remove the controller.



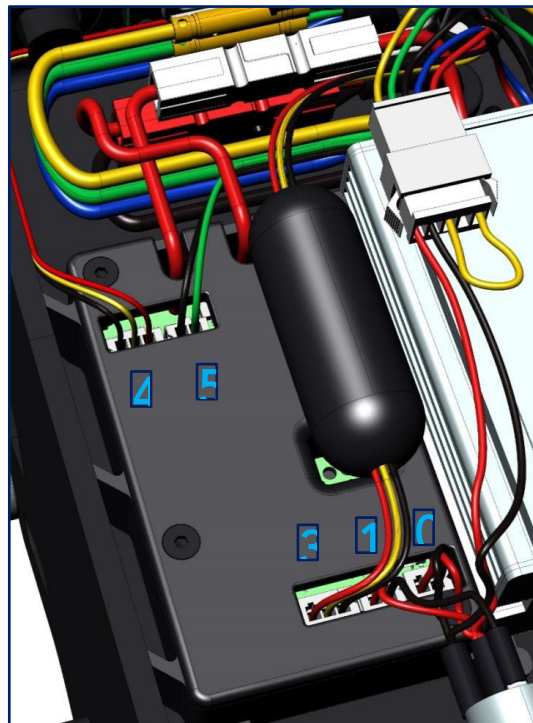
5. Remove the PCB.



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### 1.3.3 Installing the new PCB

1. Connect the cables to the PCB.
2. Insert the controller.
3. Close the electrical compartment.



## 1.4 REPLACING THE CONTROLLER

### 1.4.1 Reference

Part number

Controller Set	1005205
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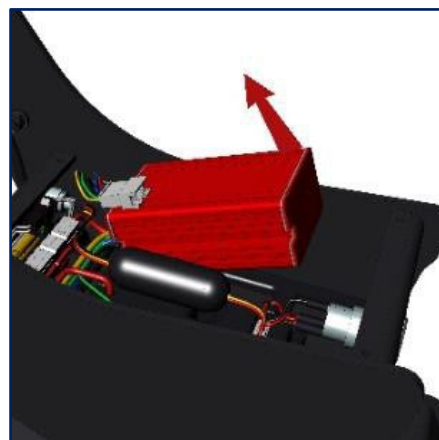
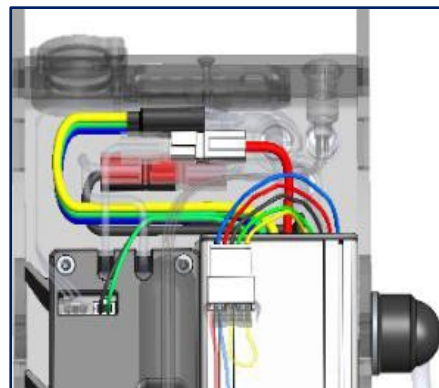
### 1.4.2 Disassembly

1. Turn off the Yomper.
2. Open the electrical compartment.



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1. Disconnect wires 2 and 5.
  
2. Disconnect the 3 motor/controller wires (blue, green, yellow).
  
3. Remove the controller.



### 1.4.3 Installing the new controller

1. Connect the 3 motor/controller wires according to the table below. Insulate connectors with heat shrink tubing.

<i>Controller</i>	<i>Old motor</i>	<i>New motor</i>
<b>Blue</b>	<b>Blue</b>	<b>Blue</b>
<b>Yellow</b>	<b>Green</b>	<b>Yellow</b>
<b>Green</b>	<b>Yellow</b>	<b>Green</b>

2. Connect wires 2 and 5.
3. Insert the controller.
4. Close the electrical box.

## 1.5 REPLACING THE ON/OFF BUTTON

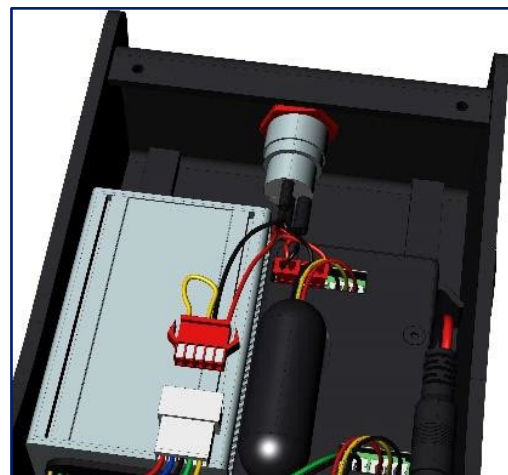
### 1.5.1 Reference

Part number

ON/OFF Button	1005202
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### 1.5.2 Replacement

1. Disconnect the button from the PCB.
2. Unscrew the button using a 22 mm wrench.
3. Insert the new button.



4. Check the direction of the logo.
5. Tighten the button.



6. Connect the button to the PCB and the controller.

## 1.6 REPLACING THE POWER CONNECTOR

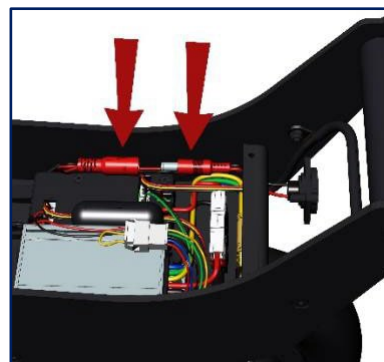
### 1.6.1 Reference

Part number

Power Connector Set	1005196
---------------------	---------

### 1.6.2 Replacement

1. Disconnect the power connector.
2. Unscrew both screws and remove the power connector.
3. Secure and connect the new power connector.



## 1.7 REPLACING THE ATTENDANT CONTROL CONNECTOR

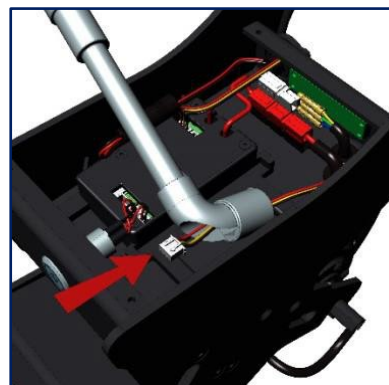
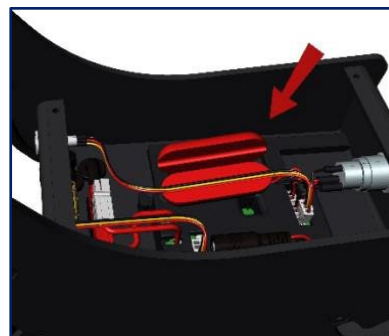
### 1.7.1 Reference

Part number

Attendant Control Connector	1005203
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**1.7.2 Replacement**

1. Remove the controller (refer to [section 1.4.2](#)).
2. Disconnect the attendant control connector from the PCB.
3. Remove the ferrite.
4. Unscrew the connector using a 14 mm socket wrench.
5. Insert and secure the new socket (keyed upward).
6. Secure the ferrite and connect the connector to the PCB.



## 1.8 REPLACING THE BATTERY GAUGE

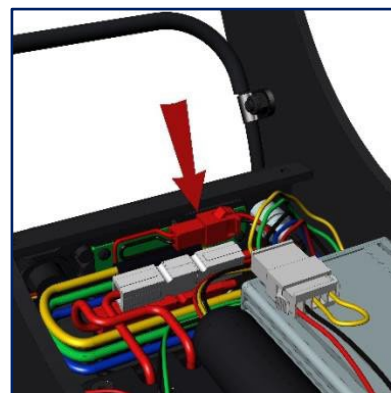
### 1.8.1 Reference

Part number

Battery Gauge	1005197
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### 1.8.2 Replacement

1. Remove the PCB (refer to [section 1.3.2](#)).
2. Remove the power socket (refer to [section 1.6.2](#)).
3. Disconnect the battery gauge.
4. Unscrew both screws and remove the battery gauge.
5. Insert and secure the new battery gauge.
6. Insert the PCB and connect its wires (refer to [section 1.3.3](#)).



## 1.9 REPLACING THE BATTERY

### 1.9.1 Reference

Part numbers

24 V 6 Ah Battery	1005178
24 V 10 Ah Battery	1005179

### 1.9.2 Battery Replacement

1. Turn off the Yomper.
2. Turn the Yomper upside down to access the battery compartment.
3. Remove the cover from the compartment.
4. Remove the battery from its housing.
5. Remove the connector clip.
6. Disconnect the battery.
7. Connect the new battery.
8. Insert the connector clip and place the battery into its slot.
9. Close the cover.



## 1.10 REPLACING THE LOCKING SYSTEM

### 1.10.1 Reference

Part number

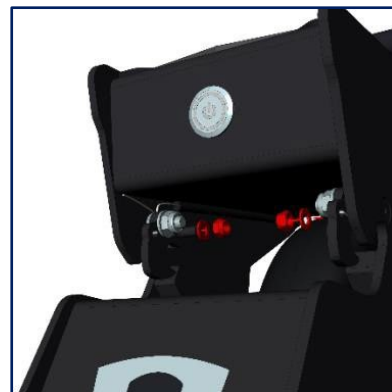
Locking System	1005200
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### 1.10.2 Replacement

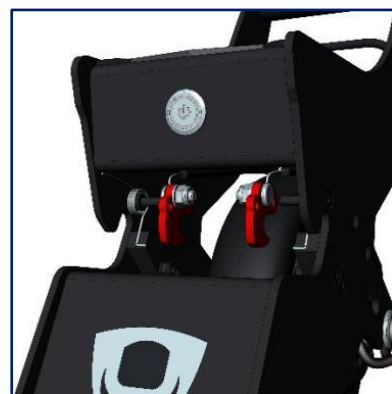
1. Remove both handle supports.



2. Remove both M5 nuts.

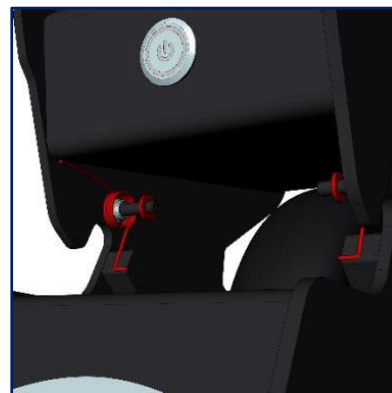


3. Remove the locking system from the Yomper.

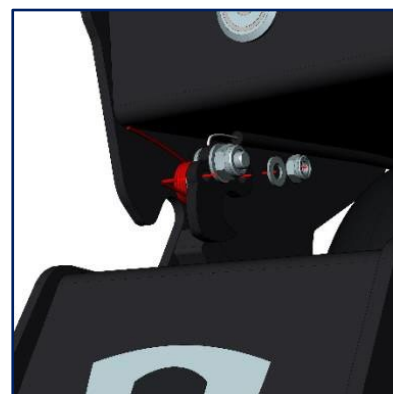


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4. Insert the left and right springs, then an M5 washer.



5. Insert the latch onto the M5x25 screw and on the spring.



6. Insert an M5 washer and tighten an M5 nylon lock nut.

7. Reinstall the 2 handle supports. Make sure the sheath extends  $\frac{1}{8}$ " (5 mm) beyond the support.



8. Adjust the torque of the M5 nuts on the latches. The handle should operate the latches (6). The latches return to their position with the springs.

## 2. EASYGO BUTTON

Installed on wheelchair frame or user's leg.

### 2.1 CONNECTING THE EASYGO BUTTON TO THE YOMPER

1. Refer to the Certificate of conformity to find the MAC address of the Yomper.

Certificat de conformité Certificate of conformity Yomper	
Numéro de série (Serial Number) : 3664550200026	
Fabriquant (manufacturer) : Acekare Adresse : 7 rue Mireport 33310 Lormont France	
Référence du Yomper <i>Yomper reference</i>	YPA0037
Numéro de lot PCB <i>PCB batch number</i>	BXA14767
Numéro de série PCB <i>PCB serial number</i>	175
Tropicalisation du PCB <i>PCB tropicalization</i>	Conforme
Adresse MAC <i>Mac adress</i>	682719049651
Numéro de serie contrôleur <i>Controler serial number</i>	19092464
Test de connexion Bouton <i>Connection bouton</i>	Conforme
Contrôle visuel <i>Visual control</i>	Conforme
Test de fonctionnement <i>Function test</i>	Conforme

2. Turn on the Yomper.
3. Turn on the EasyGo button.

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4. To access the menu, press the left button for 5 seconds.



5. Go to the "scan" menu. Press the Stop button.



6. Choose the MAC address corresponding to the Yomper from the list using the right or left buttons and press the Stop button.



7. The EasyGo button will prompt you to restart. Turn off the button and restart it.

8. The EasyGo button restarts and displays the speed. The button is now connected to the Yomper.



## 2.2 REPLACING THE CASING OR ITS CONTENT

### 2.2.1 Reference

Part numbers

Bottom	1005212
Cover	1005213
Stop Button	1005214
Screen Support	1005216

### 2.2.2 Replacement

1. Remove both screws from the Stop button.



2. Unclip the button.



3. Remove all 5 screws from the cover.



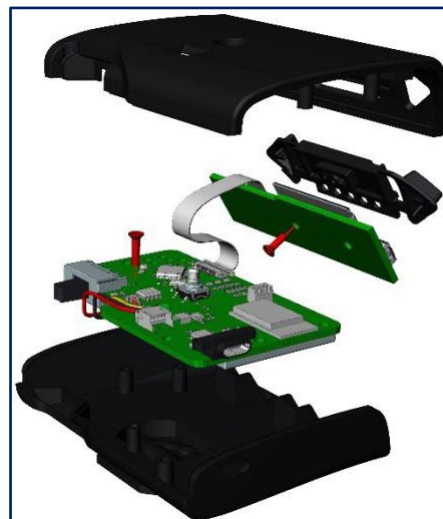
4. Unclip the screen from the cover.



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5. Replace the affected part.

6. Reassemble the casing.



## 2.3 REPLACING THE BATTERY IN THE EASYGO

### 2.3.1 Reference

Part number

EasyGO Button Battery	1005206
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### 2.3.2 Replacement

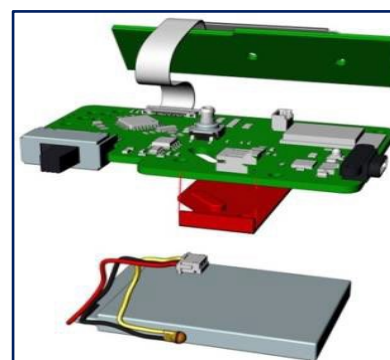
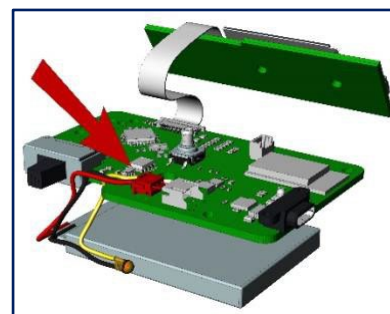
1. Remove the PCB from the button (refer to [section 2.2.2](#)).

2. Disconnect the battery.

3. Replace the battery.

4. Reassemble the casing.

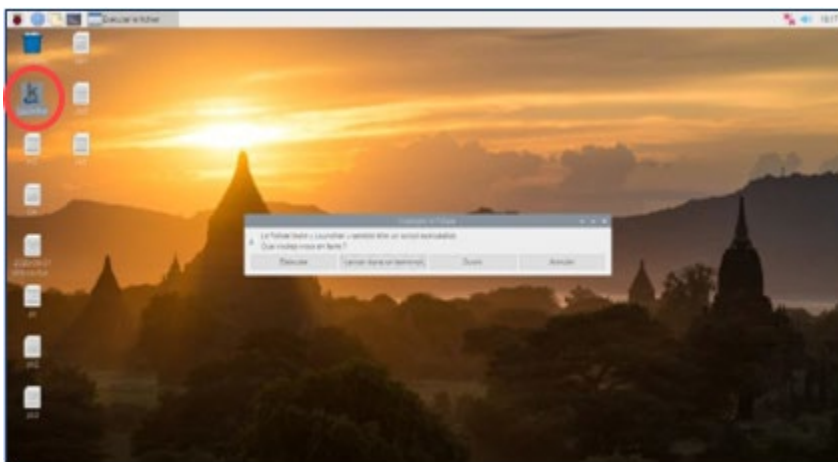
The new batteries are delivered with a protective cover to be attached to the circuit board.



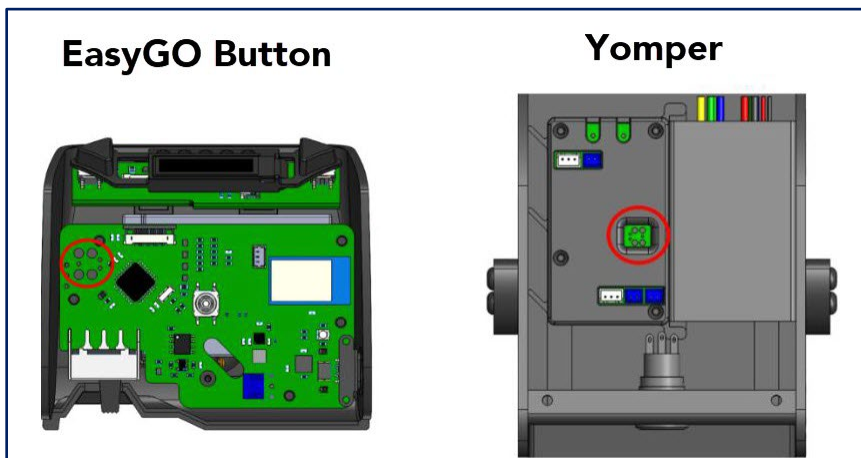
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### 3. SOFTWARE UPDATE

1. Connect the programming tool to an HDMI screen and a mouse.
2. Connect the programming tool to a power source. The unit will start automatically.
3. Open the Launcher application.

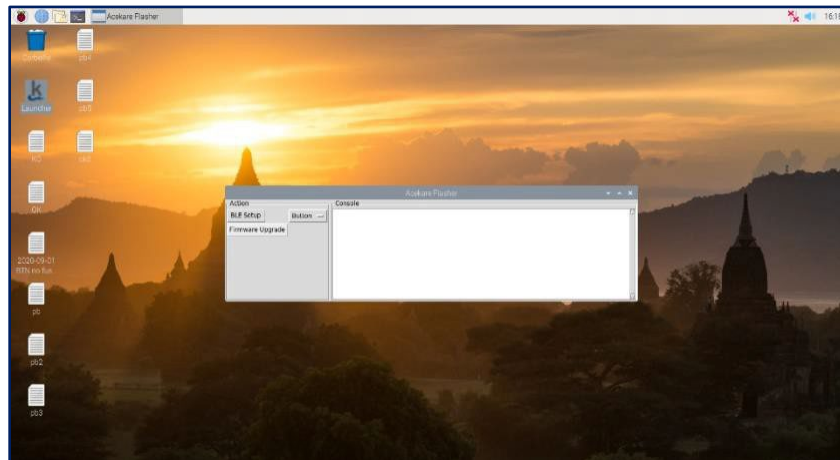


4. Click Run.
5. Connect the Yomper or the EasyGo button to the programming tool using the programming cable.

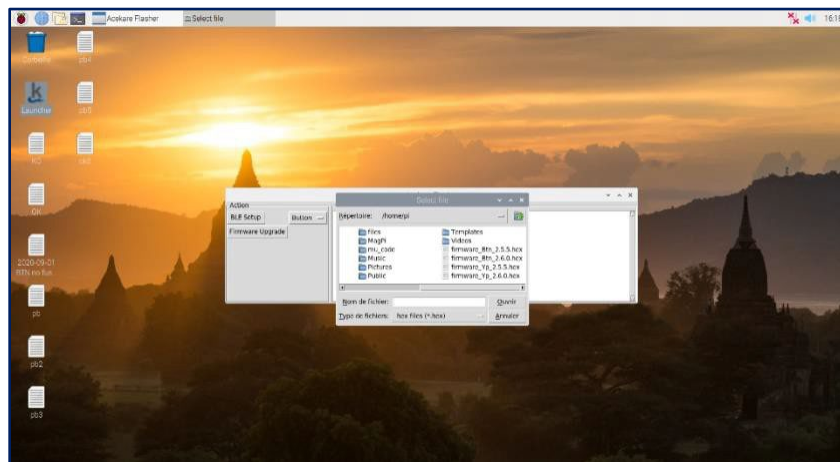


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6. Click Firmware Upgrade.



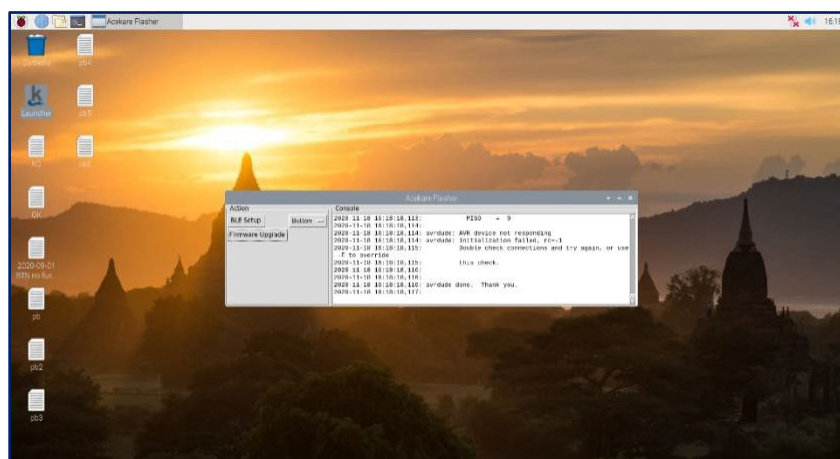
7. From the list, choose the new firmware to install.



8. Click Open.

**Do not disconnect the Yomper or the EasyGo button from the programming tool.**

9. When the update is complete, disconnect the Yomper or the EasyGo button.



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