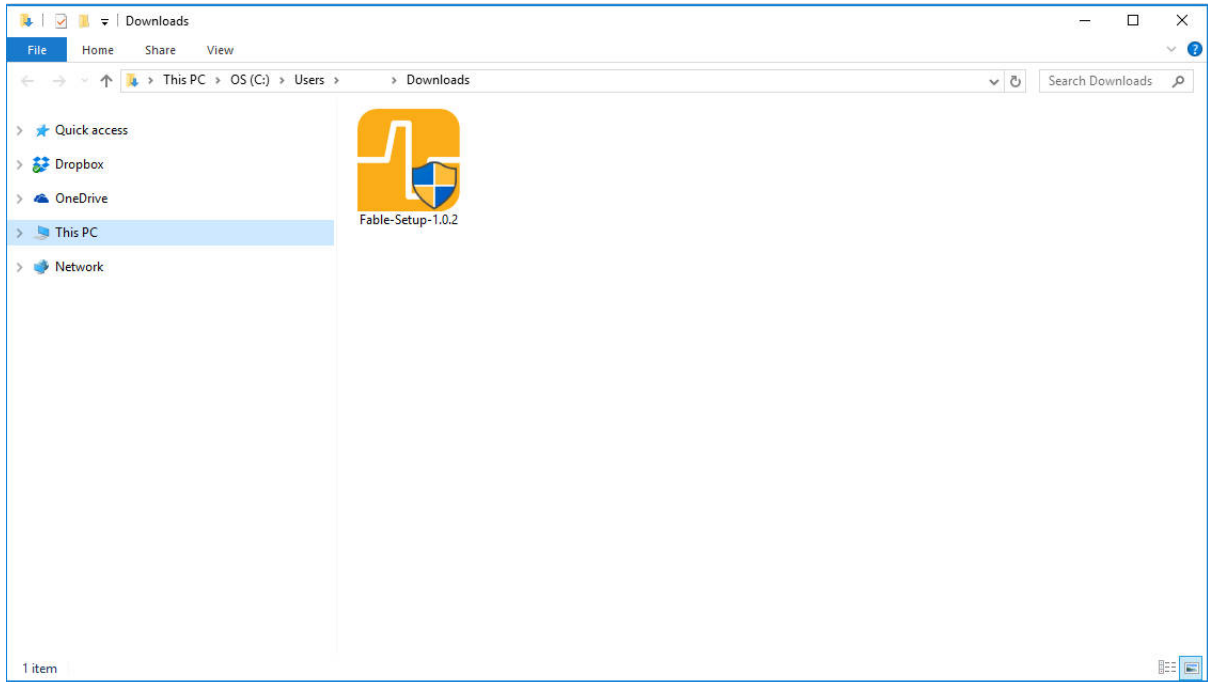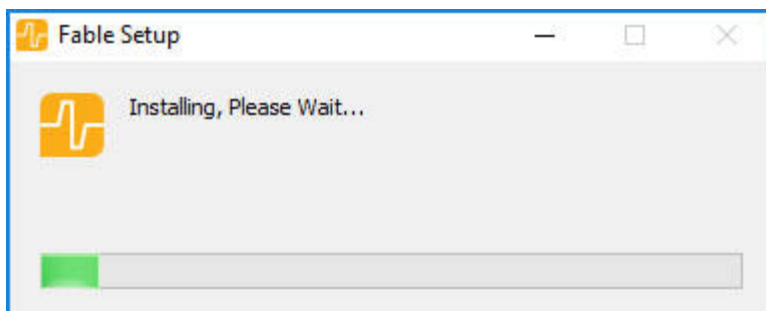Once it finished downloading go to the destination folder and double click on the Fable-Setup icon.

Once you have double clicked the Fable-Setup icon you should see a dialog box with a progress bar indicating the status of the installation process.
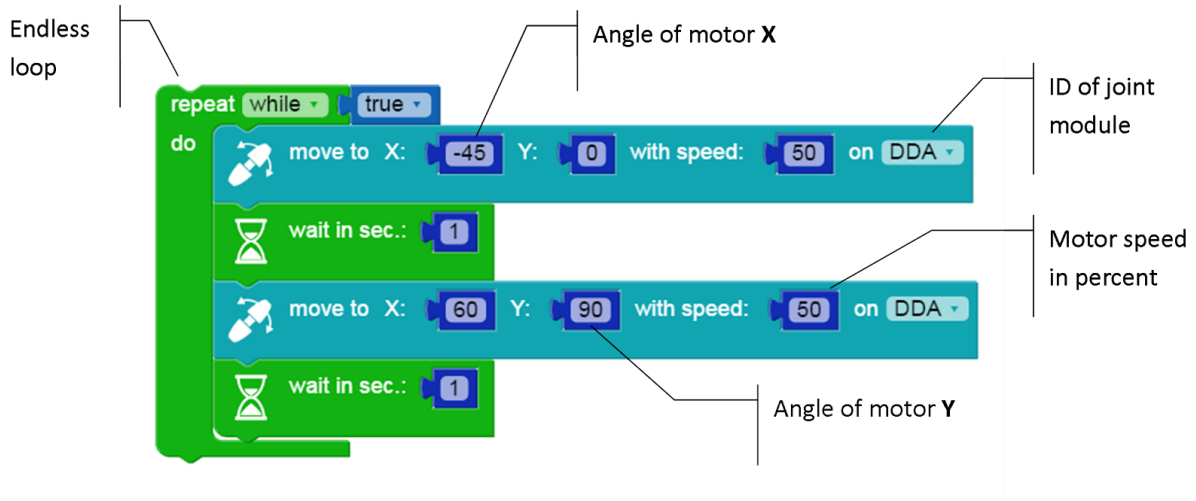

Plug in the Dongle to your PC's USB port. If you're running Windows 7 or 8 see the following section: Install the Dongle Driver (Windows 7 & 8).
Start the PC Program by clicking this icon located in your Desktop.

How to write a program

To get started with programming Fable follow these instructions:
1. Turn on a Joint Module
2. Pair the Dongle with the module.
3. Create a test program as the one shown below.

4. Press the Run button located in the software's menu.

5. If done correctly the Joint Module should move back and forth between two positions at 1 second intervals.Observe behavior

6. You can stop the program by pressing the Stop button. You can experiment with this program by changing the example code.
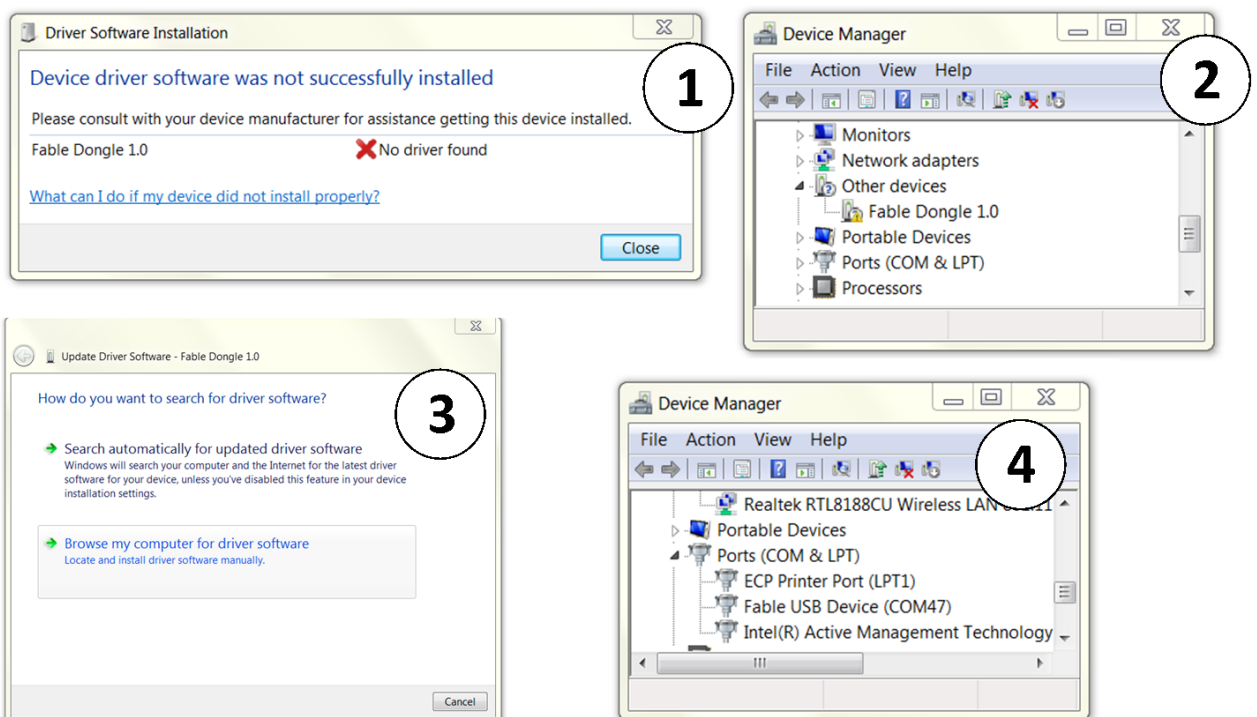
Install the Dongle Driver (Windows 7 & 8)

A driver for the Dongle only needs to be installed in Windows 7 & 8.

Step 1: Windows will alert you that the driver is not installed. Once this happens download the driver from www.shaperobotics.com/download and unzip in a folder. (See balloon 1).

Step 2: Locate the Dongle within Windows' Device Manager under Other devices, right click and select "Update Device Software". (See balloon 2).

Step 3: Browse to the the folder containing the driver that you downloaded. Accept if Windows warns you that the driver is unsigned. (See balloon 3).

Step 4: The Dongle driver should now be installed. It can be checked under the "Ports" section in Device Manager. The Dongle will automatically be assigned as a COM port. (See balloon 4).
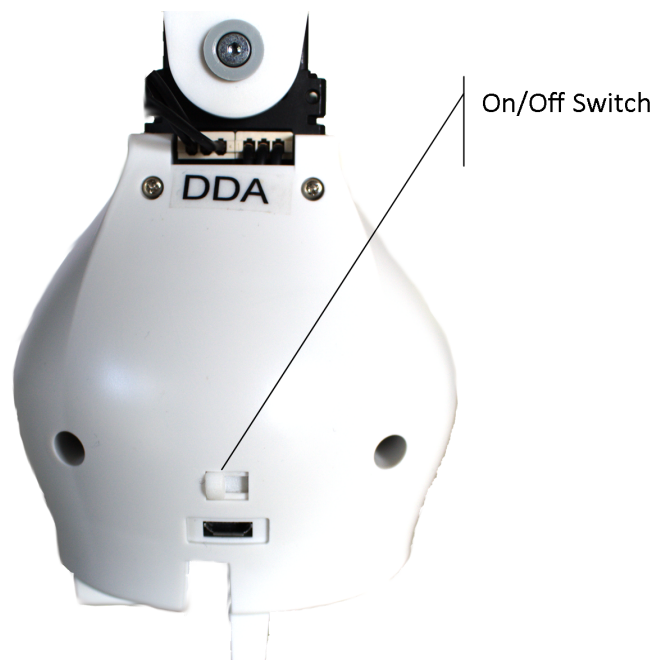
Chapter 3: Basics

Turning the Module On/Off

An on/off switch is can be found on the back of the joint module.

On: When the module is on it can be programmed wirelessly, the module's button will light up and the color will change when pressing the button.

Off: When the module is off the colored light is off unless it is charging or the button is being pressed. If the button is pressed while the module is off, the light will turn on and display the module's battery level.

On/Off Switch

Battery Management

The Joint Module contains a rechargeable LiPo Battery.

Charging: The battery is recharged with a USB charger and can be charged while the module is either on or off.

Timeout: To save battery the module will automatically turn off after being inactive for 10 mins. To turn it on again, the on/off switch must be toggled or the module's button pressed.

Battery level:
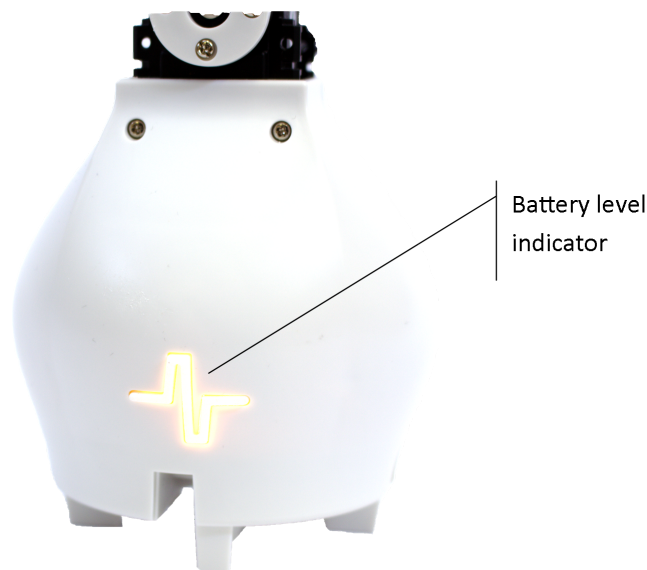Color of the module button will indicate battery level in the **off** state, when:
- Charging
- Button is pressed

Battery level is indicated in a scale: Green = full level, yellow = medium level, red = low level.

Self-protection: To protect the battery the module will automatically power down if the battery level becomes too low. Recharge the module to make it functional again.

Lifetime: To maximise battery lifetime, avoid full battery depletion before recharging.

Storage: If a module is to be stored for months without being used it should be charged to at least the yellow battery level before being stored.
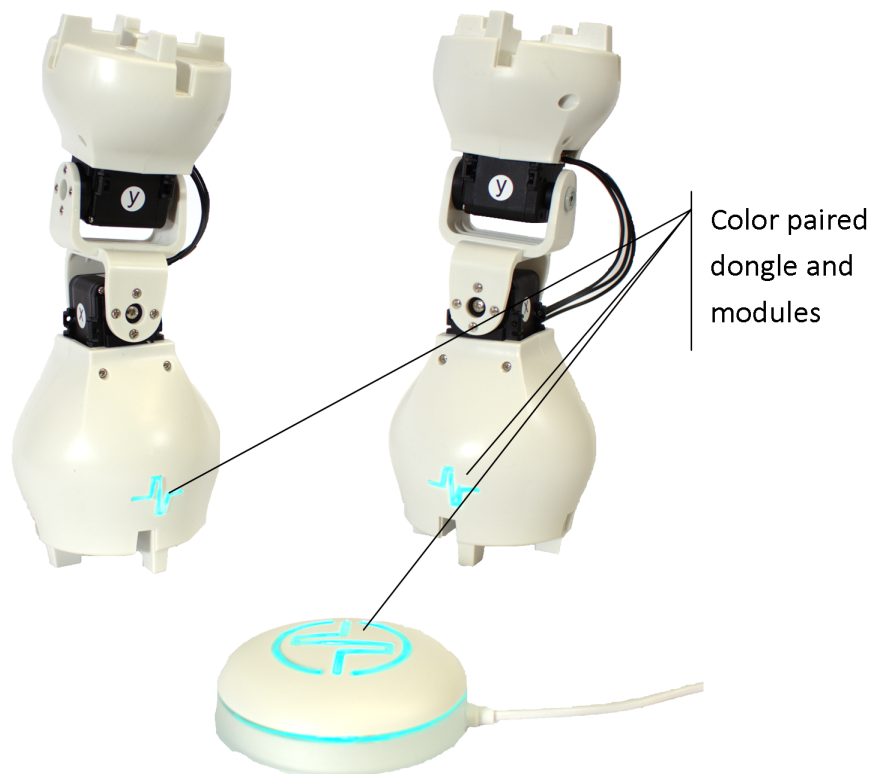

Battery level indicator

Wireless communication

Dongle and modules communicate wirelessly using radio signals.

Channels: The radio signals can be on different channels, each of the channels is indicated by the Dongle's or module's LED color. If a Dongle and a group of modules are on the same channel they are able to communicate.

Color pairing: The color on the modules and Dongle indicates the radio channel. To pair modules with a Dongle simply match the color by pressing their buttons.
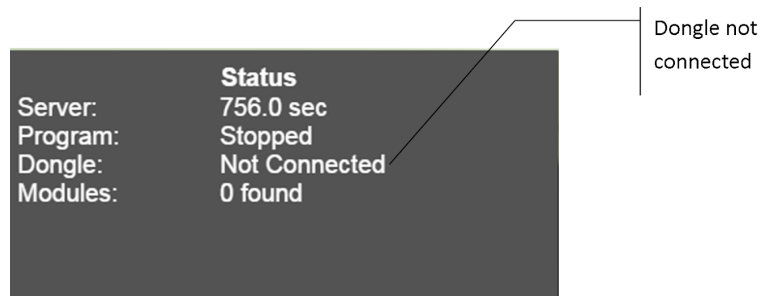
Interference: Several Dongles and robots can be on the same channel, however, performance will gradually decrease due to interference. In environments where many users work with Fable robots interference can be reduced by distributing evenly on the different channels.

Color paired dongle and modules
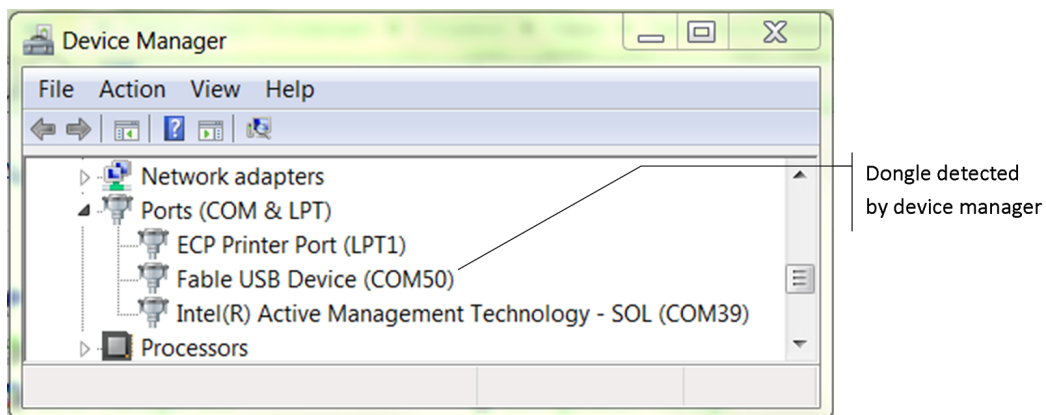
Chapter 4: Troubleshooting

Dongle not found

Symptoms: The Dongle is not detected by the computer/software. The issue can be confirmed by inspecting the status window in the PC software.

Status	
Server:	756.0 sec
Program:	Stopped
Dongle:	Not Connected
Modules:	0 found

Dongle not connected

Possible issues and suggested solutions:
- Dongle is frozen - plug out and back in the Dongle from the USB port.
- Port is frozen - restart the computer
- Operating system is not supported - check list of supported OS.
- Driver not installed (Windows 7 & 8) - install driver and inspect Device Manager to verify. See Install Dongle Driver in Chapter 2.
- USB Cable broken - replace cable
- Dongle broken - contact Shape Robotics

Device Manager

File Action View Help

▷ 💻 Network adapters
▲ 🖥 Ports (COM & LPT)
　　🖵 ECP Printer Port (LPT1)
　　🖵 Fable USB Device (COM50)
　　🖵 Intel(R) Active Management Technology - SOL (COM39)
▷ 💻 Processors

Dongle detected by device manager

Module not found

Symptoms: The module does not show up with its ID in the graphical user interface.

Possible issues and suggested solutions:
- The Dongle is not connected (see above).
- The joint module is not on. Even if it has a color it may be charging while turned off. Press the module's button to see if the color changes, if it does it means it is turned on, if not then check the on/off switch.
- The Joint Module has crashed - try restarting the module by toggling the on/off switch.
- The joint module is broken - contact Shape Robotics.

Status	
Server:	48.0 sec
Program:	Stopped
Dongle:	OK
Modules:	0 found

No modules found

Module overloaded

Symptoms: The joint module blinks red and stops moving for a period of time.

Possible issues and suggested solutions:
- A motor on the module has been overloaded, i.e. commanded to perform a movement which it does not have the strength to perform. To solve: Modify program and/or robot configuration to avoid damaging the motor.
- A motor has overheated. To solve: Let motor cool down.

Chapter 5: Safety, handling and support

Important Safety and Handling Information

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. **Notice:** Any changes or modifications not expressly approved by Shape Robotics for compliance could void the user's authority to operate the equipment.

Warning: Failure to follow these safety instructions could result in fire, electric shock, injury, or damage to Fable or other property. Read all the safety information below before using Fable.

Not a toy: Fable is intended for use for educational purposes in schools and other pedagogical contexts under the surveillance of an adult instructor. Do not let children use Fable without supervision.

Handling: Handle Fable with care. It is made of plastic and has sensitive electronic components inside. Fable can be damaged if dropped, stalled, pulled, overloaded, burned, punctured, or crushed, or if it comes in contact with liquids. Do not use a damaged or malfunctioning Fable module.

Repairing: Do not open any Fable modules, nor should you attempt to repair Fable yourself. Disassembling Fable may damage it or may cause injury to you. If Fable is damaged, malfunctions, or comes in contact with any liquids, contact Shape Robotics.

Battery: Don't attempt to replace the battery in a Fable module yourself - you may damage the battery or module, which could cause overheating and injury. The lithium-ion battery in the module's should be replaced only by Shape Robotics.

Charging: Charge Fable with the included USB cable and power adapter, or with another certified USB charger or cable, with a maximum rating 5 V and 2.1 A. The USB cable should have a maximum of 3 m in length. Using damaged cables or chargers, or charging when moisture is present, can cause fire, electric shock, injury, or damage to Fable or other property.

Medical device interference: Fable contains magnets, electronic components and radios that emit electromagnetic fields. These fields may interfere with pacemakers, defibrillators, or other medical devices. Maintain a safe distance of separation between your medical device and Fable. Consult your physician and medical device manufacturer for information

specific to your medical device. If you suspect Fable is interfering with your pacemaker, defibrillator, or any other medical device, stop using Fable.

Extreme risks: Fable is not intended for use where the failure of the device could lead to death, personal injury, or environmental damage.

Choking hazard: Some Fable accessories may present a choking hazard to small children. Keep these accessories away from small children.

Operating climatic conditions: Fable is designed to work only in an indoor environment with ambient temperatures between 0° and 35° C and stored in temperatures between 0° and 45° C. Fable should not be used in high humidity environments, e.g. wet environments. Fable can be damaged and battery life shortened if stored or operated outside of these temperature ranges. Avoid exposing Fable to dramatic changes in temperature or humidity. When you're using Fable or charging the battery, it is normal for Fable to get warm.

Fable Support

Support information are available online at http://shaperobotics.com
For personalized support contact Shape Robotics at: support@shaperobotics.com