

# User Manual

Painkiller system

Team3

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# Manual for Physician

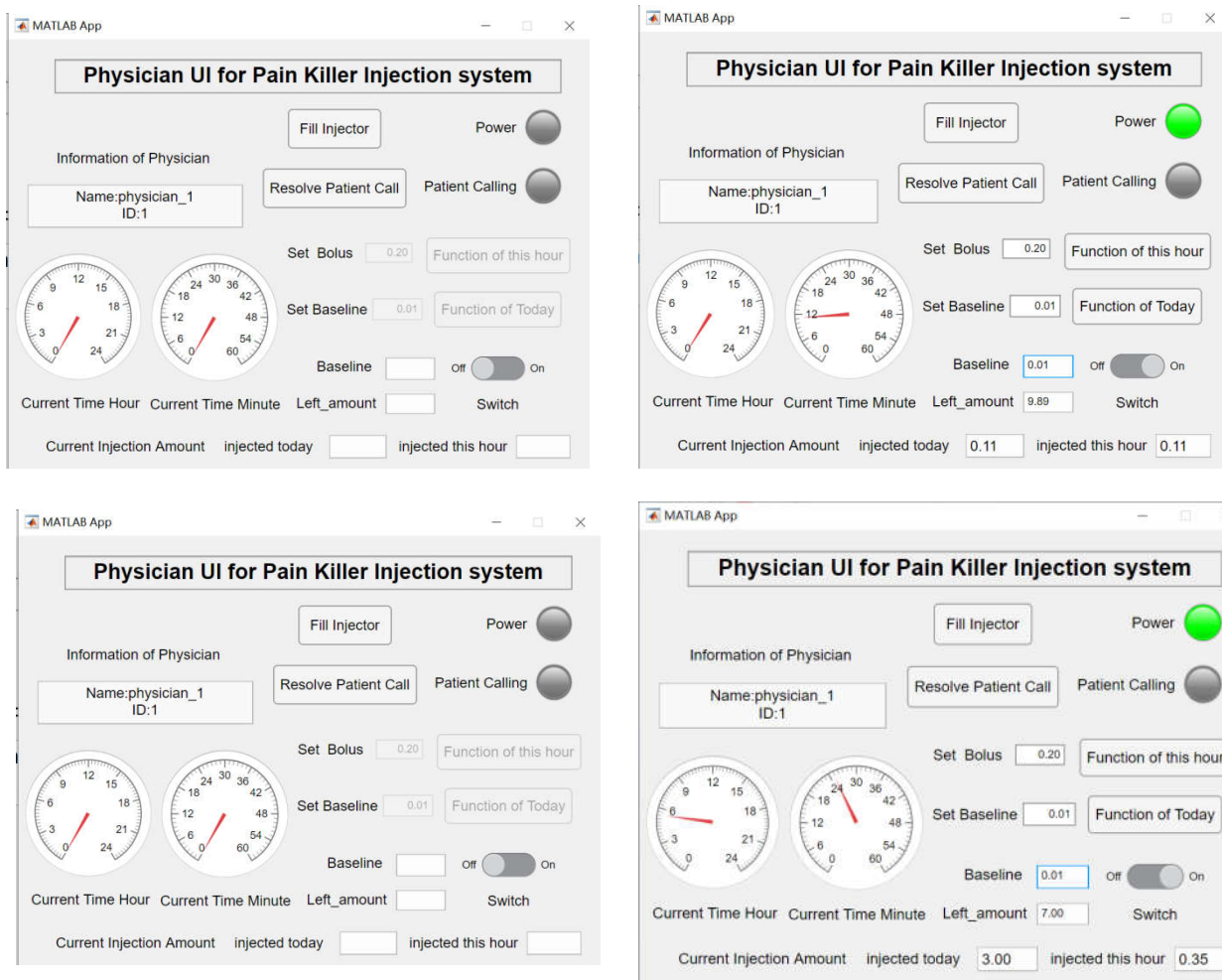
## 1 Brief Introduction

Target users: physician that assist patient to use painkiller.

Format of the program: an App with UI.

Function of the program: assist patient to use painkiller.

## 2 Basic Component of the App



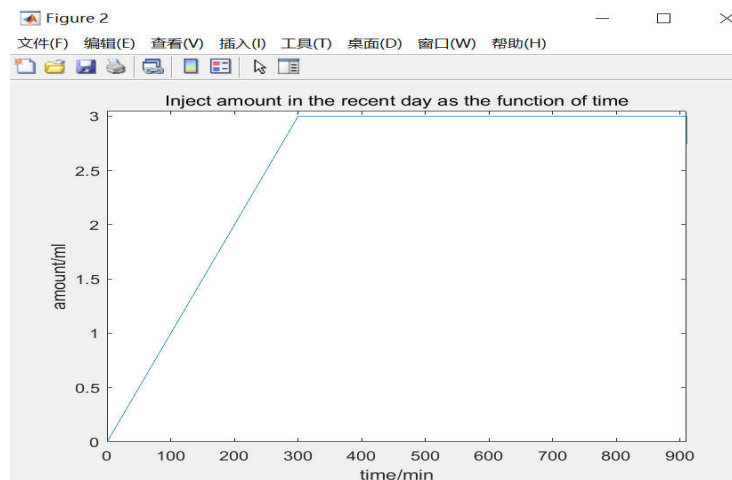
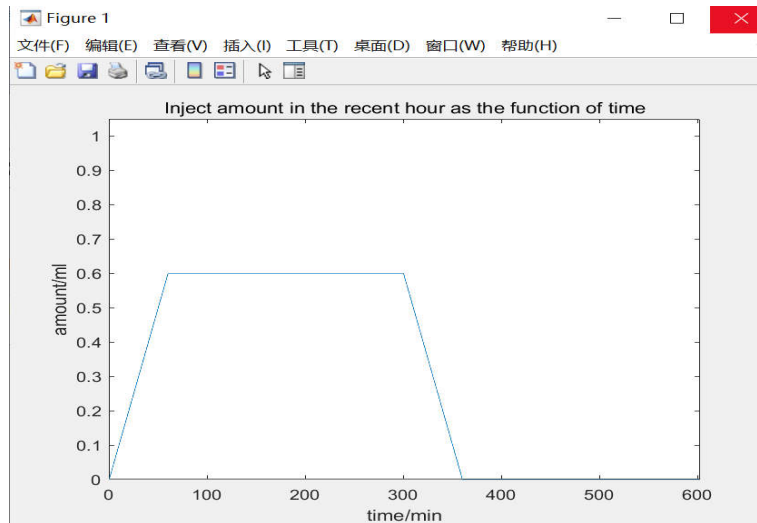
## 3 How to Use the App

(1) The "Information for physician" text area is used to present basic information of you, including the name and ID.

(2) The switch is used to turn on or turn off the injector

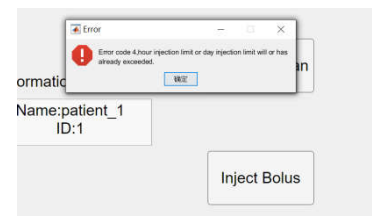
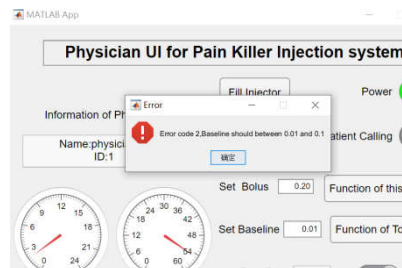
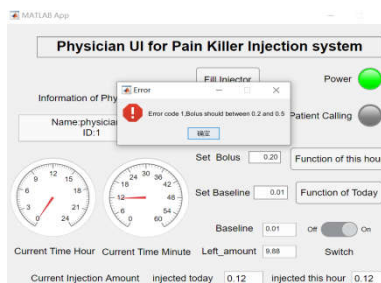
(3) The "power" lamp indicate whether the injector is on. It will turn green when it is on, and turn grey when it is off.

- (4) You can enter number in the "Set Bolus" text area to change Bolus. Invalid input that is too big, too small will receive an error message. None-numerical input will also not be allowed.
- (5) You can enter number in the "Set Baseline" text area to change Baseline. Invalid input that is too big, too small will receive an error message. None-numerical input will also not be allowed.
- (6) The "Patient Calling" will turn red if there is a patient call.
- (7) You can press "Resolve Patient Call" button to turn the "Patient Calling " lamp grey, which indicates you have receive the information and you will go to see the patient soon.
- (8) You can press "Fill Injector" button to let the machine fill the injector automatically.
- (9) The "Baseline" text area will show current baseline
- (10) The "Left\_amount" text area will show current medicine left in the injector
- (11) The "Current Time Hour" will show how many hours has passed since the first time when the injector is o.(For example,if currently 100 minute has passed,which means 1 and 2/3 hour. Then the clock pointer will point to 1 and 2/3.)
- (12) The "Current Time :Minute" will show how many minute (ignoring the hour)has passed since the first time when the injector is on.(For example,if currently 100 minute has passed,which means 1 hour and 40 minute. Then the clock pointer will point to 40,and 1 hour is ignored in this clock.)
- (13) The "Current Injection Amount: injection today" text area will show how many medicine has injection in the recent day.
- (14) The "Current Injection Amount: injection this hour" text area will show how many medicine has injection in the recent hour.
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- (15) You can press "Function of this hour" button to show a function of time and amount that has injection in the recent hour. The x-axis is the time/min and the y axis is amount/ml.
- (16) You can press "Function of Today" button to show a function of time and amount that has injection in the recent day. The x-axis is the time/min and the y axis is amount/ml.



## 4 Notice

- (1) When the injector is off, the function of inject baseline and inject bolus will be disabled. But the other function will still work.
- (2) The injector has set limit of inject amount, which guaranteed the safety of the patient.
- (3) Error message will be displayed as stated previously, which also guarantee the safety of the patient. There are 3 types of errors. Please see graphs below.



- (4) Hour and minute does not stands for the time in reality, instead it stands for the time passed since the first time when the injector is on.

# Manual for Patient

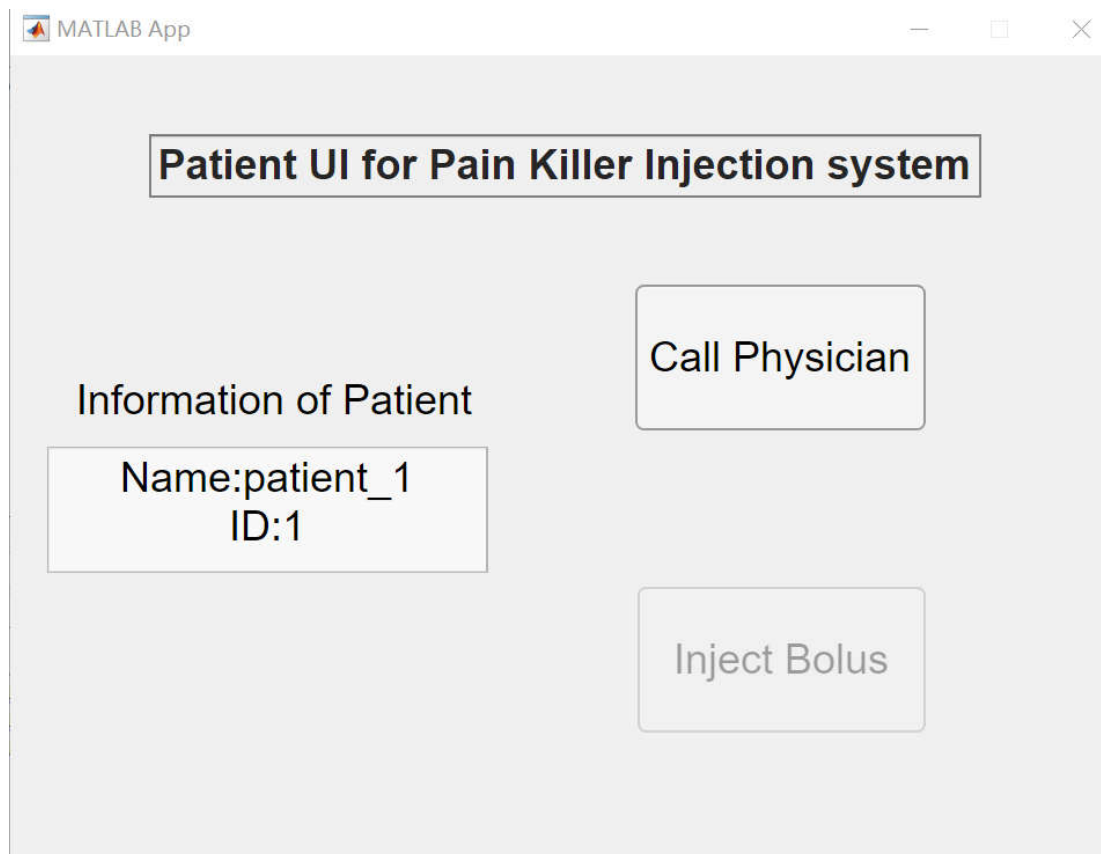
## 1 Brief Introduction

Target users: patient that want to use painkiller to ease pain.

Format of the program: an App with UI.

Function of the program: assist user to use painkiller under the help of physician.

## 2 Basic Component of the App



## 3 How to Use the App

(1) the "Information of patient" message box is used to present basic information of you, including the name and ID.

(2) the "Call Physician" button will call the physician. After receiving the information, the physician will offer help to the patient later.

(3) the "Inject Bolus" will inject a Bolus to you to ease pain. If the amount injected is insufficient, please contact physician to adjust the amount of Bolus or baseline.

## 4 Notice

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- (1) If you feel uncomfortable or the injection speed is too fast or too slow, use the "Call Physician" button to contact physician to adjust the injection.
- (2) The injector has set limit of inject amount, which is guaranteed to be safe to person.

