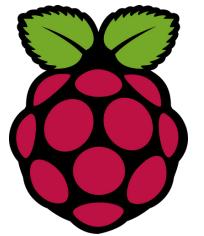


SMART HOME AUTOMATION

RASPBERRY PI | TELEGRAM BOT

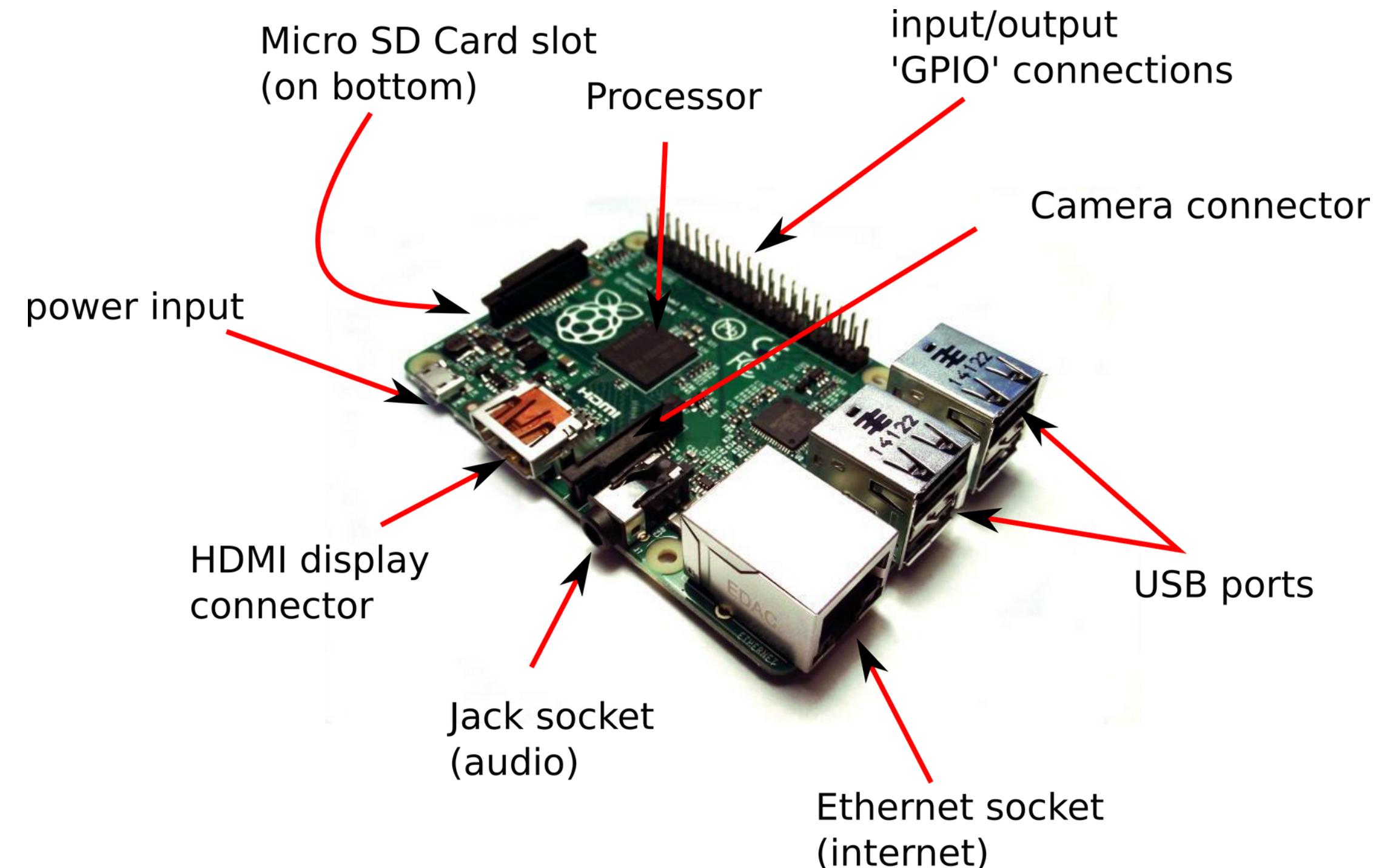
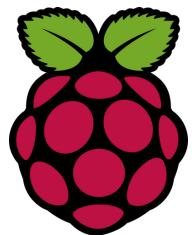
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Problem Statement



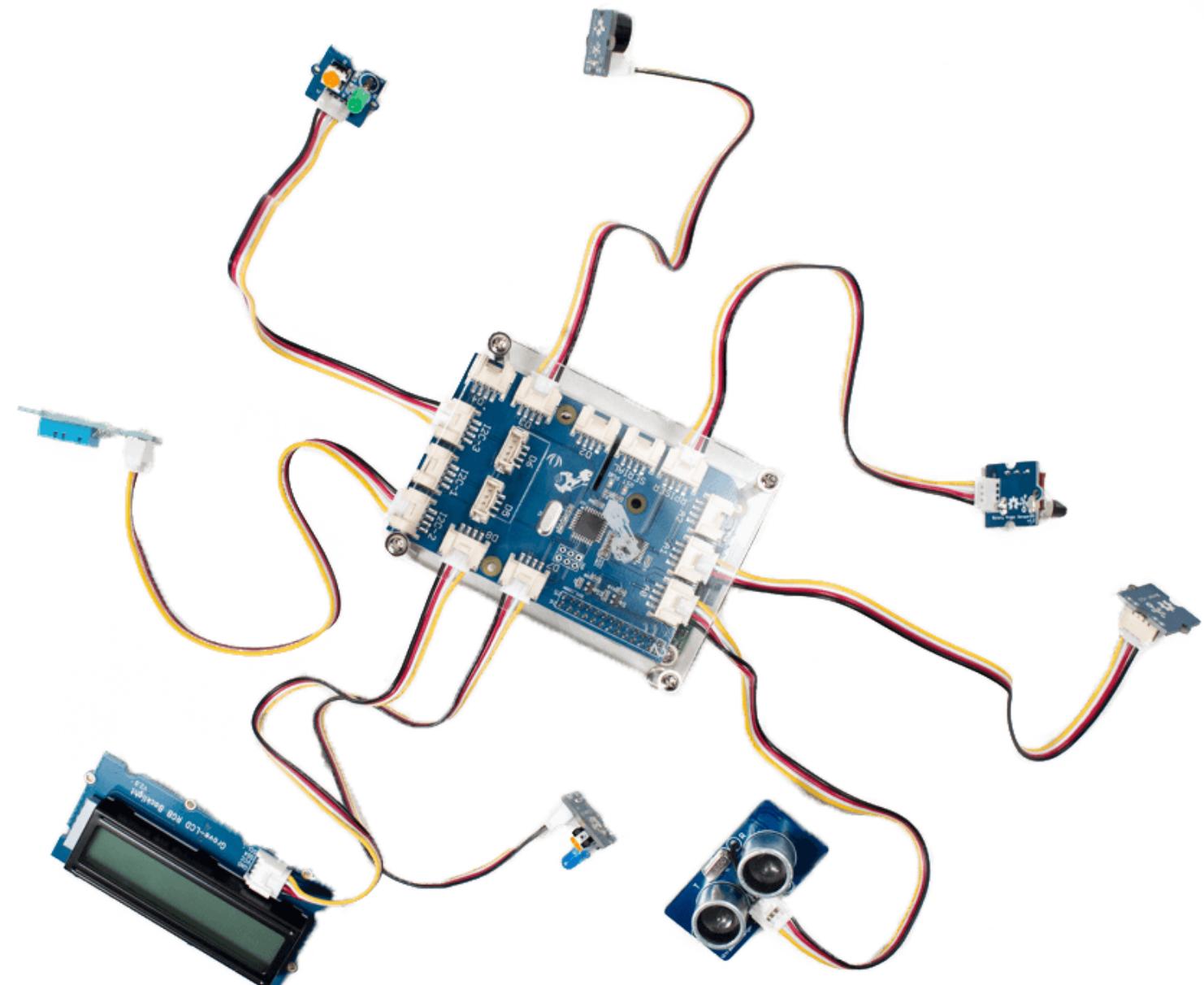
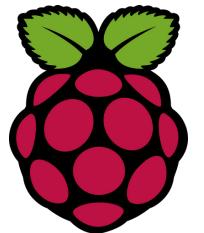
- Difficulty in controlling home devices **remotely** or when **away from home**.
- Accessibility issues for users with **disabilities** that may affect their ability to operate conventional home automation interfaces.
- Difficulty in receiving the **real-time alerts** or notifications about home security events.

Raspberry Pi



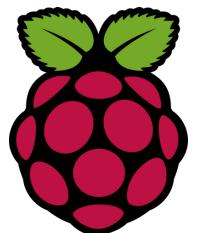
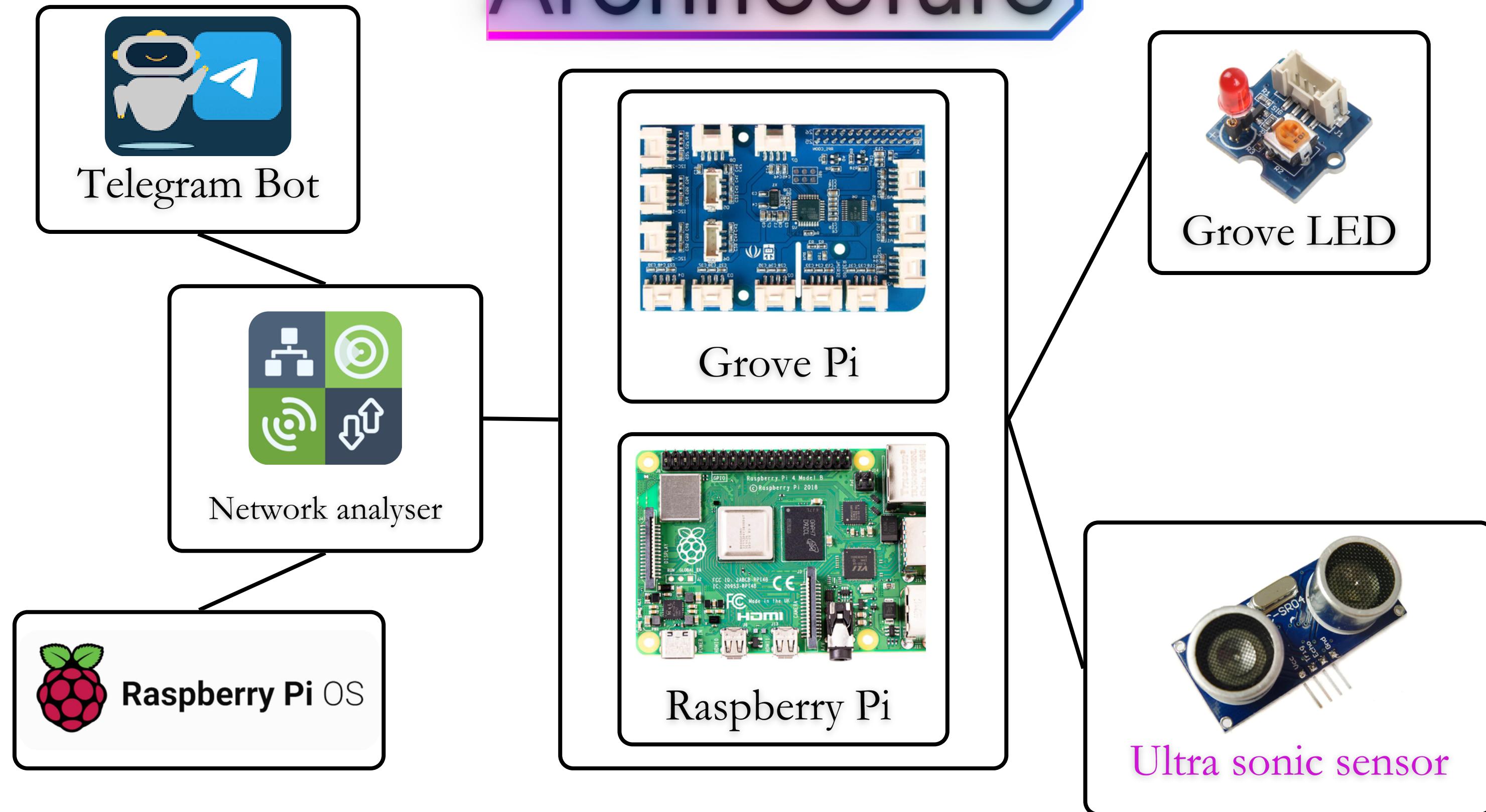
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Grove Pi



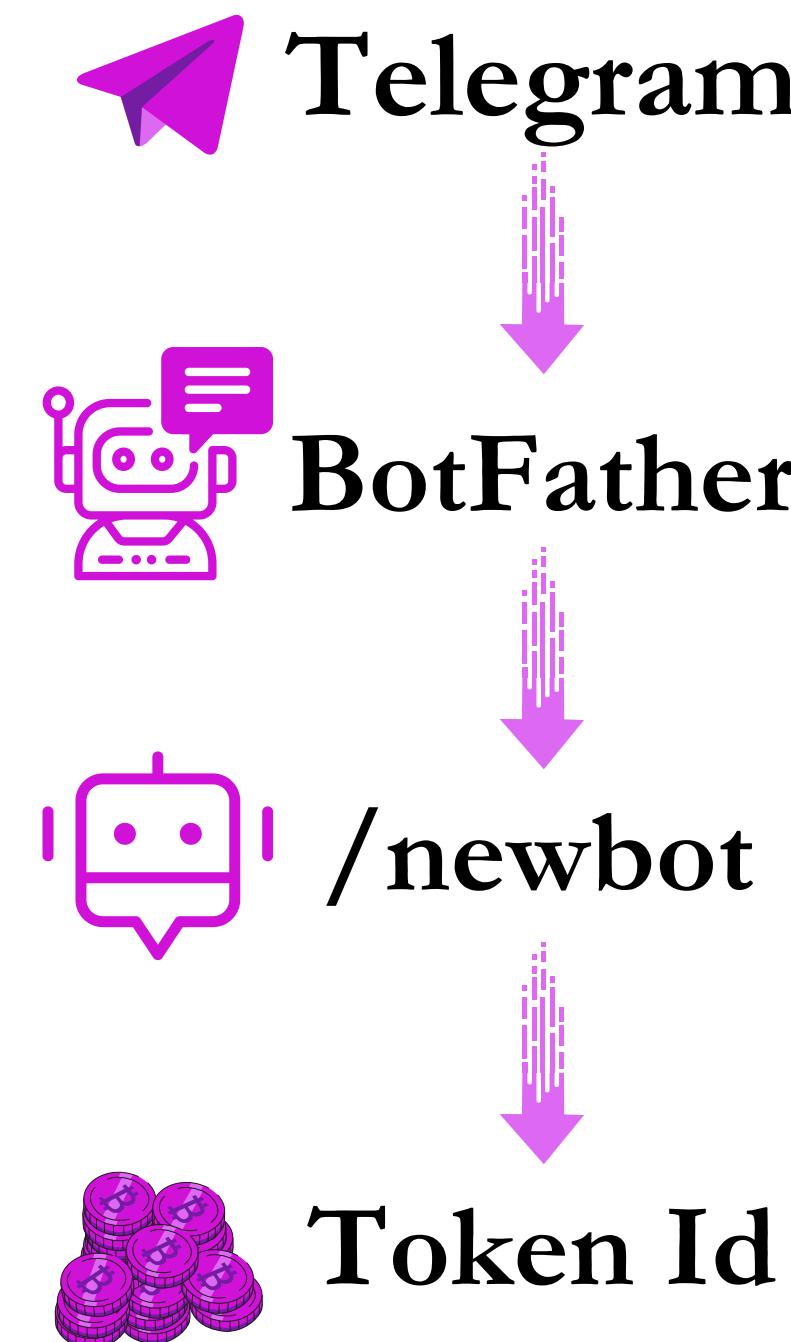
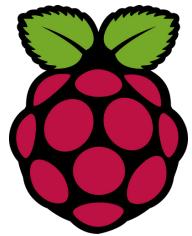
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Architecture



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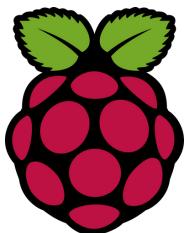
Telegram Bot



BotFather

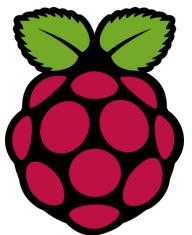
bot

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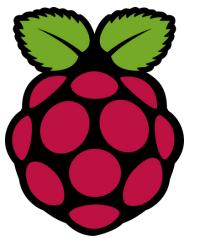
Code

```
bot_token = 'YOUR_BOT_TOKEN'  
bot = telepot.Bot(bot_token)  
  
def send_telegram_message(chat_id, message):  
    bot.sendMessage(chat_id, message)  
  
    def action(msg):  
        chat_id = msg['chat']['id']  
        content_type, chat_type, message_id = telepot.glance(msg)  
        if content_type == 'text':  
            command = msg['text']  
            if 'on' in command:  
                message = "Turned on "  
                if 'led' in command:  
                    message = message + "LED"  
                    digitalWrite(led, 1)  
                    message = message + " light(s)"  
    send_telegram_message(chat_id, message)
```



Code

```
if 'off' in command:  
    message = "Turned off "  
    if 'led' in command:  
        message = message + "LED"  
        digitalWrite(led, 0)  
        message = message + " light(s)"  
send_telegram_message(chat_id, message)  
  
elif content_type == 'voice':  
    # Handle voice messages  
    file_id = msg['voice']['file_id']  
    file_info = bot.getFile(file_id)  
voice_msg_url = f"https://api.telegram.org/file/bot{bot_token}/{file_info['file_path']}"  
voice_msg_response = requests.get(voice_msg_url)  
  
if b'turn off LED' in voice_msg_response.content:  
    digitalWrite(led, 0)  
send_telegram_message(chat_id, "Turned off LED light(s) based on voice command.")
```



THANK YOU

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