### Arduino会梦到光立方吗?

王乐研 戈虹杰









## 你好, 梦不到。

王乐研 戈虹杰













🤒 PPT – 人机交互结课汇报







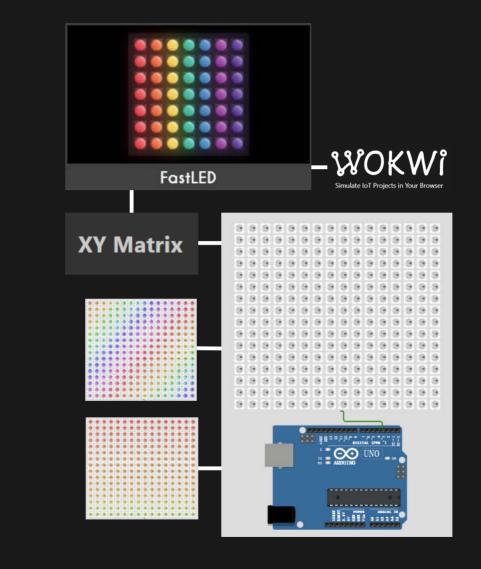


### 有没有什么替代方案呢?







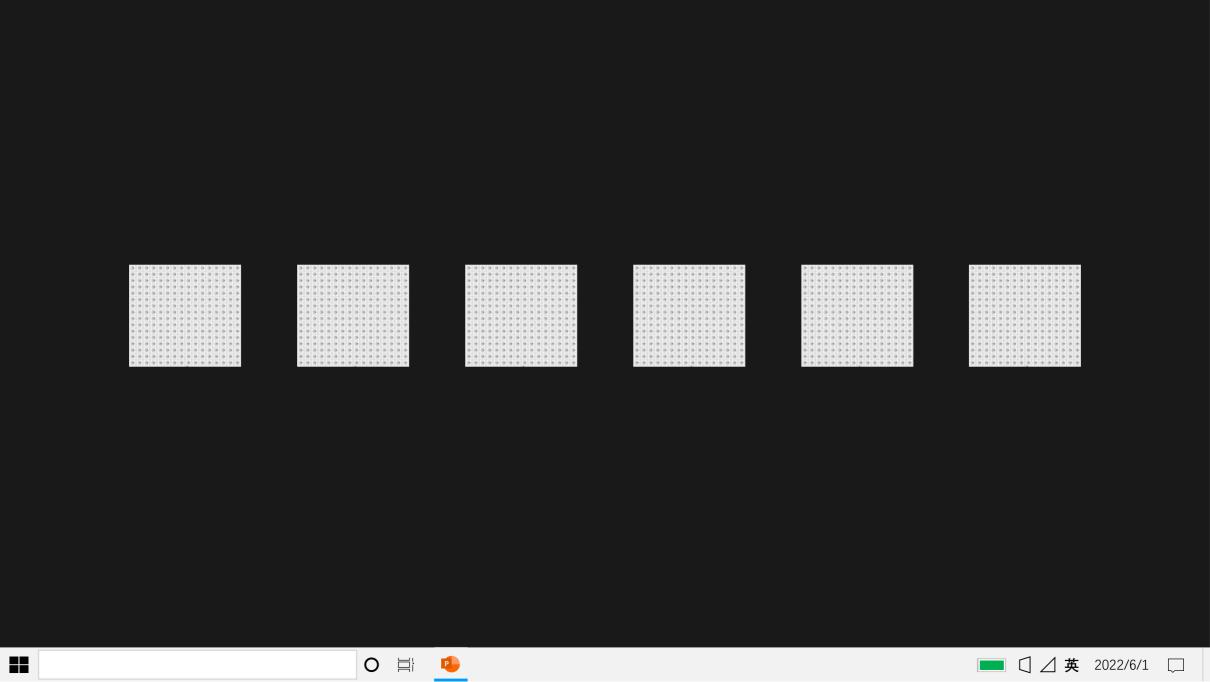


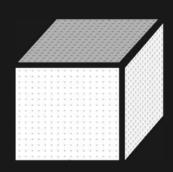
























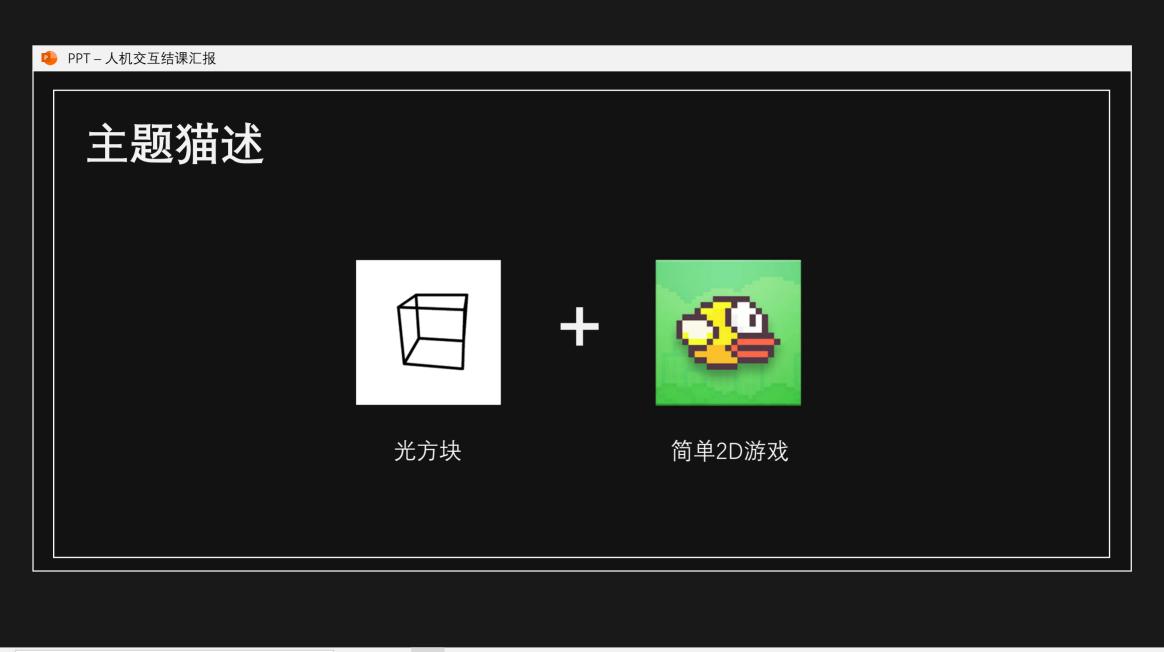
# 光方块 Arduino会梦到光立方吗?

[程序] 王乐研 [不是程序] 戈虹杰



























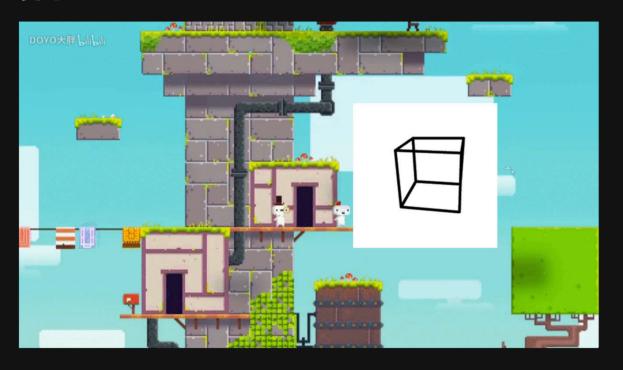


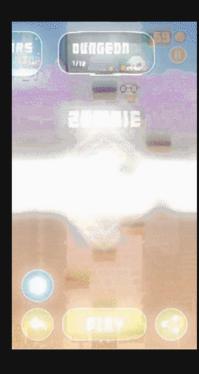






### 主题猫述(选哪个游戏?)













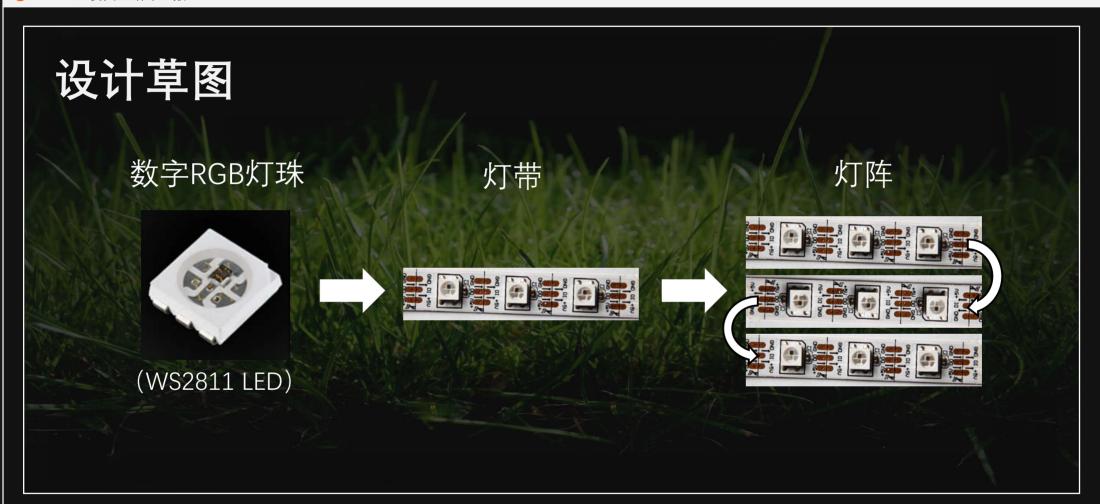










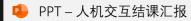


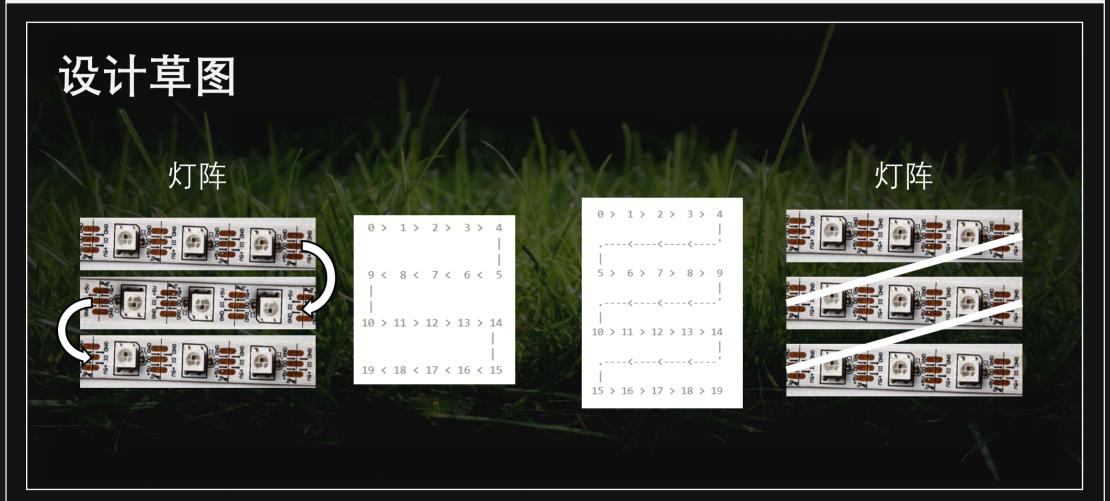


















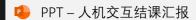


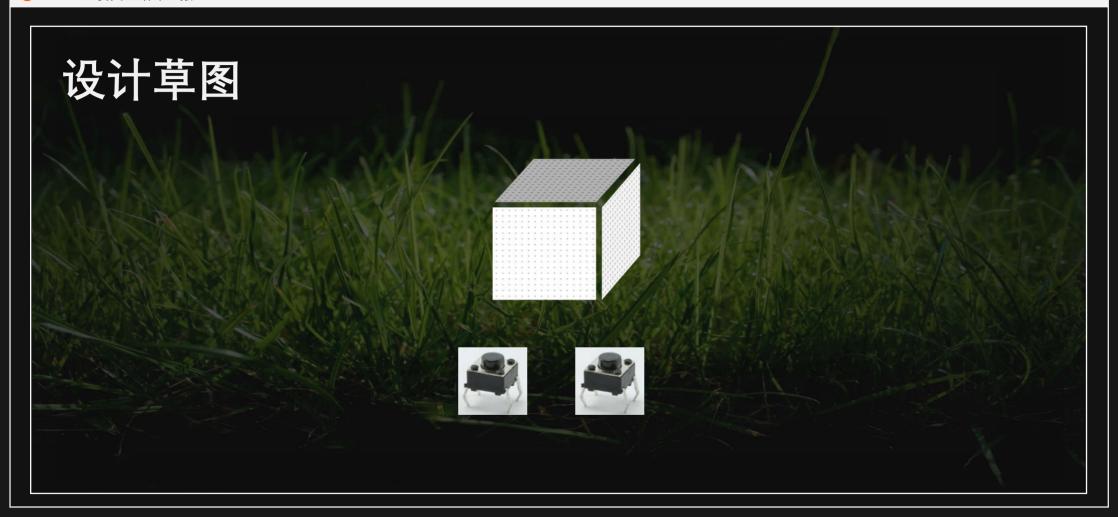










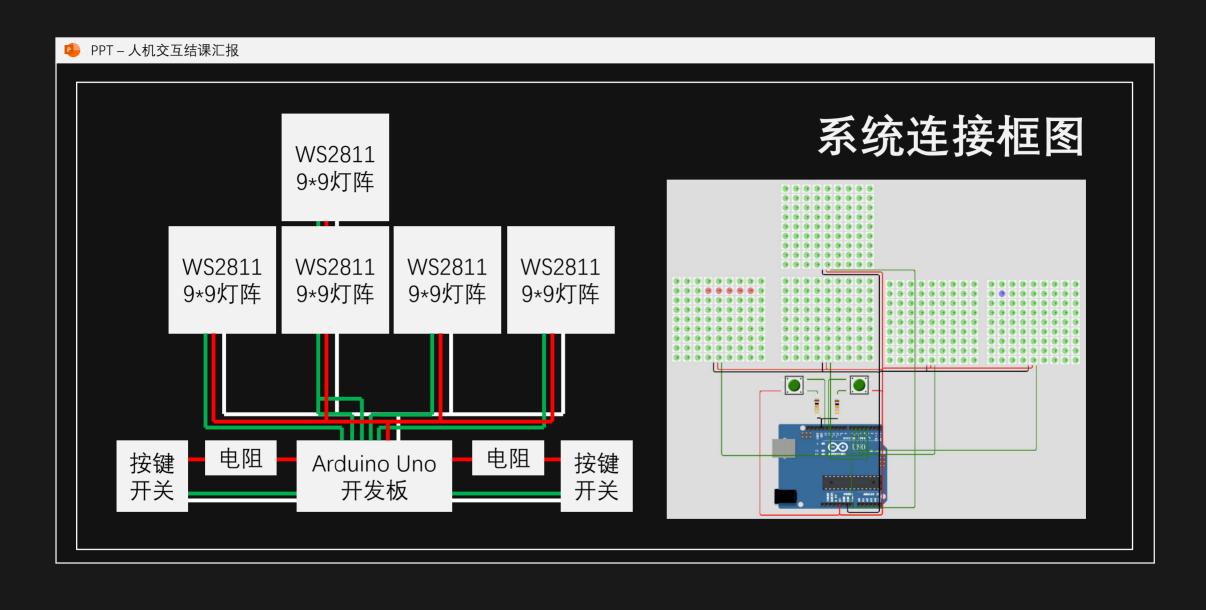












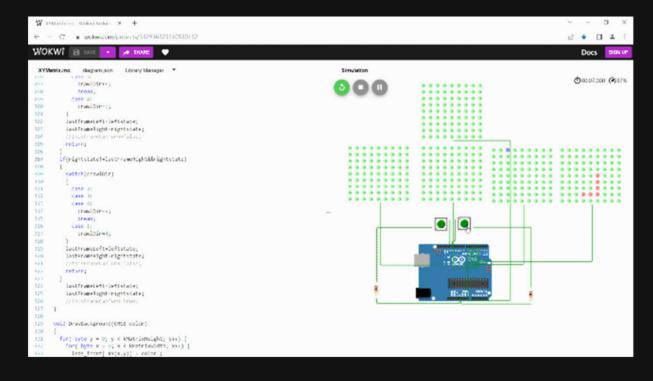








### 交互演示









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### 代码展示(按键输入)

```
void ChangeDir(){
 boolean leftstate=digitalRead(BUTTOM LEFT);
 boolean rightstate=digitalRead(BUTTOM_RIGHT);
 if(leftstate!=lastFrameLeft&&leftstate)
   switch(crawlDir)
     case 1:
     case 2:
     case 3:
       crawlDir++;
       break:
     case 4:
       crawlDir=1;
   lastFrameLeft=leftstate;
   lastFrameRight=rightstate;
   //thisFrameCanTurn=false;
   return;
 if(rightstate!=lastFrameRight&&rightstate)
   switch(crawlDir)
```

```
W symphism Wakai saki x +
                                                                                                                       v - D ×
     C* wokwicom/projects/332916325310530132
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          crawlodes;
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         CARR AL
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       lastframeleft:leftstate:
                                                                                      .........
       lastframelight-rightstate;
                                                                                      ........
       retarns
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                                                                                     LF(rightstatel=lastrramenlght8&rightstate)
                                                                      ........
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                                                                      ........
       switch(crawlintr)
                                                                      . . . . . . . . . .
                                                                      ........
                                                                                     case 21
                                                                      ........
        CANP 3:
                                                                                      ****** *** *** ****** *****
        CASE 61
         traslotr--;
         trusc:
         Case 1:
         craniciret;
       lastrrameteft*leftstate:
       lastFrameRight-rightstate;
       retares
       lastframeLeft=leftstate:
       lastframelight-rightstate;
    vold bravbackground(cross color)
330
      for; byte y = 0; y < Watrismeight; y++) (
       for( byte x - e; x < kratelwidth; x++) [
         less feered syrk, will a color a
```









void loop()

### 代码展示(状态更新)

```
unsigned long currentTime=millis();
if(currentTime - previousTime > interval){
  previousTime=currentTime;
 thisFrameCanTurn=true;
  if(!getLonger)
    SnakeCrawl();
  else
    GetLonger();
 DrawBackground(BACKGROUND COLOR);
 EatFood();
```

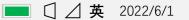
```
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          tress.
         CARR AL
          inwident;
                                                                                          .........
        lastframeleft:leftstate:
                                                                                          .........
        lastframelight-rightstate;
       retarns
                                                                                         lf(rightstatel=last=rametight88rightstate)
                                                                        ........
41/00
                                                                        ........
       saltab(craditin)
                                                                        . . . . . . . . . .
                                                                        ........
                                                                                        case 21
                                                                         ........
         CANP 3:
                                                                                         ****** *** *** ****** *****
         CASE ST
          tradition--;
          trusc:
         case to
          craniciret;
        lastrrameteft*leftstate:
       lastFrameRight-rightstate;
       retares
        lastframeLeft=leftstate:
        lastframelight-rightstate;
    vold bravbackground(cross color)
330
      for; byte y = 0; y < Watrismeight; y++) (
       for( byte x - e; x < kratelwidth; x++) [
         less feered syrk, will a color a
```











#### 代码展示(穿梭)

```
void HeadMove(point &head)
                                                                              W symphism Wakai saki x +
                                                                                                                                                                                               v - D ×
                                                                                   C* wokwicom/projects/332916325310530132
                                                                                                                                                                                               e * 0 4 1
  switch(crawlDir)
                                                                              WOKWI B =
                                                                                                                                                                                                 Docs
     case 1:
                                                                                                                                                                                                O0207.527 (989%
       if(head.x==kMatrixWidth-1)
                                                                                       tress.
                                                                                                                                                                . . . . . . . . . .
                                                                                                                                                                .......
                                                                                      CARR AL
                                                                                       ineditinal.
          switch(head.locateArea)
                                                                                                                                                                .........
                                                                                     lastframeleft:leftstate:
                                                                                                                                                                .........
                                                                                     lastframelight-rightstate;
                                                                                                                                                                ........
                               case 2:
            case 0:
                                                                                     retarns
              head.locateAr
                               if(pointsInfo[0].y==0)
                                                                                                                                                                             LF(rightstatel=last=ramenight88rightstate)
                                                                                                                                                ........
                                                                              4146
              head.x=0;
                                                                                                                                                ........
                                                                                     saltab(craditin)
                                                                                                                                                . . . . . . . . . .
                                                                                                                                                ........
              break:
                                                                                                                                                               ******************************
                                                                                      case 2
                                                                                                                                                ........
            case 1:
                                                                                      CANP 3:
                                                                                                                                                               ****** *** *** ****** *****
                                                                                      CASE 61
              head.locateAr
                                                                                       traslotr--;
                               case 3:
                                                                                       trusc:
              head.x=0:
                                                                                      Case 1:
                               if(pointsInfo[0].x==0)
                                                                                       craniciret;
              break;
                                                                                     lastframeteft*leftstate:
            case 2:
                                                                                     lastFrameRight-rightstate;
              head.locateArea=3;
                                                                                     retarna
              head.x=0;
                                                                                         rumeleft-leftstate:
                               case 4:
                                                                                        romelight-rightstate;
              break:
                               if(pointsInfo[0].y==kMatrixHeight-1)
            case 3:
              head.locateAr
                                                                                       evbackground(cmts color)
              head.x=0;
                                                                                        te y = 0; y c kmatrixmeight; yee) (
                                                                                     for( byte x = e; x < kratriwidth; x++) [
              break;
                                                                                      less feered syrk, will a color a
```









# 感谢观看





