

Activity : MyCobot Challenging 2025 "The Precision Pick-and-Place Challenge"

Objective:

Participants will compete to complete a series of pick-and-place tasks with accuracy and efficiency using the MyCobot 280 robotic arm and DIY manual robotic arm.

Outline:



01

Activity
Information

02

Preparation
Parts

03

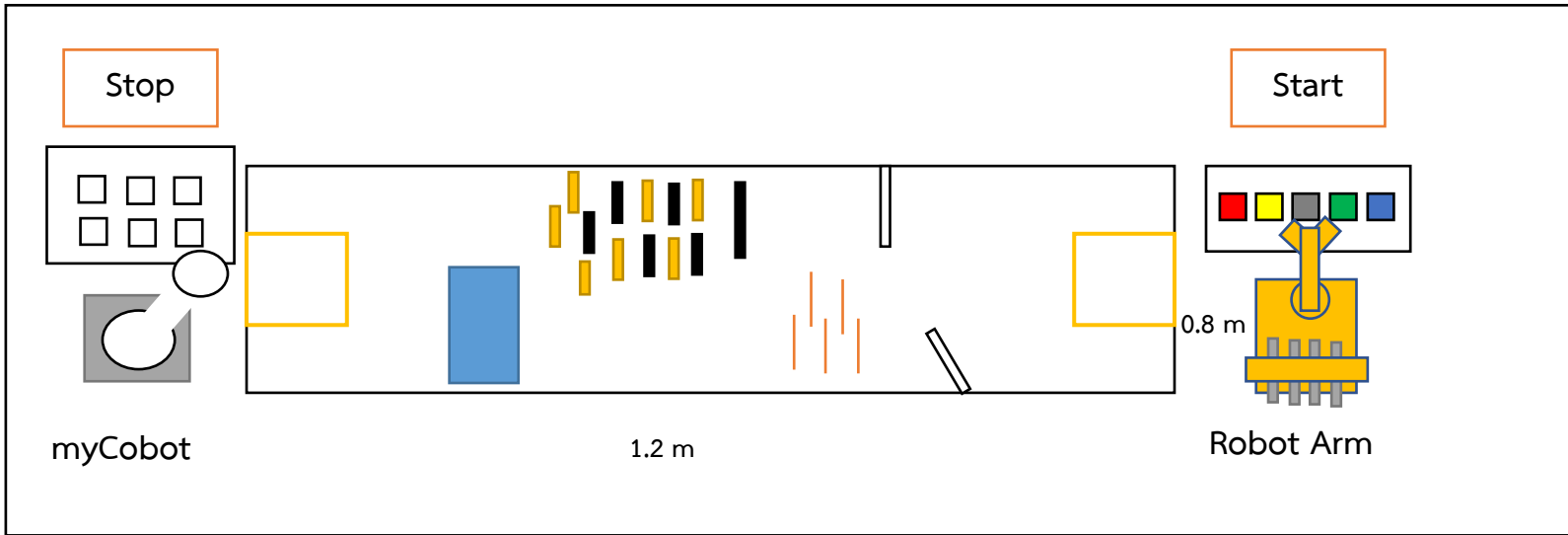
Marks &
Competition

04

Q&A

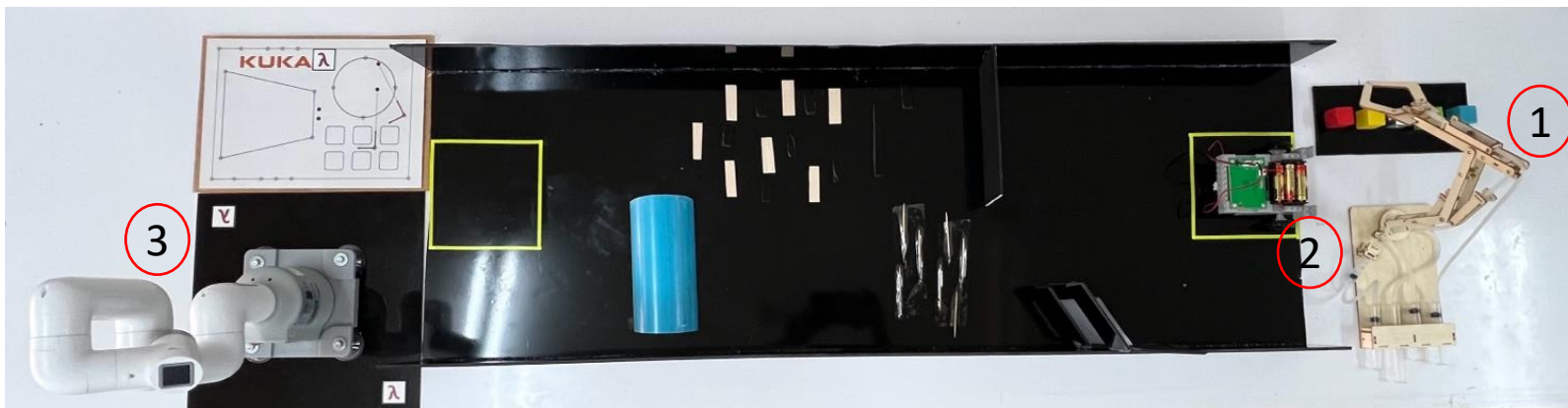


Activity Information: Overall



Activity Detail:

1. **DIY Robot Arm**
 - Pick cube at station 1 and place the cube on robot car (Manual Control)
2. **Robot car**
 - Deliver cube on robot car with remote control (Android Application)
 - Modify robot for carry cube
3. **myCobot**
 - Pick cube from robot car and place on the station 3



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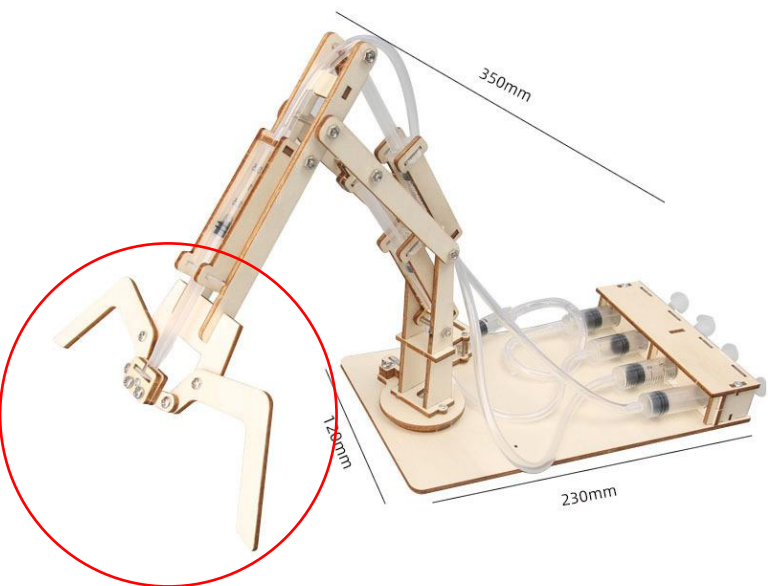
Marks &
Competition

04

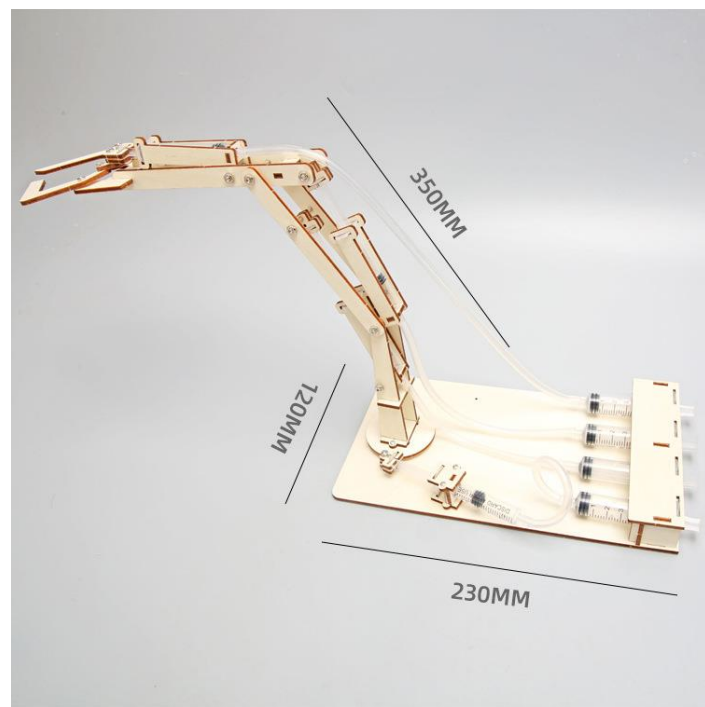
Q&A



Activity Information: DIY Robot Arm



单个产品包装重约195克



DIY Robot Arm

- Pneumatic robot arm
- Manual Control
- Modify gripper for keep the cube

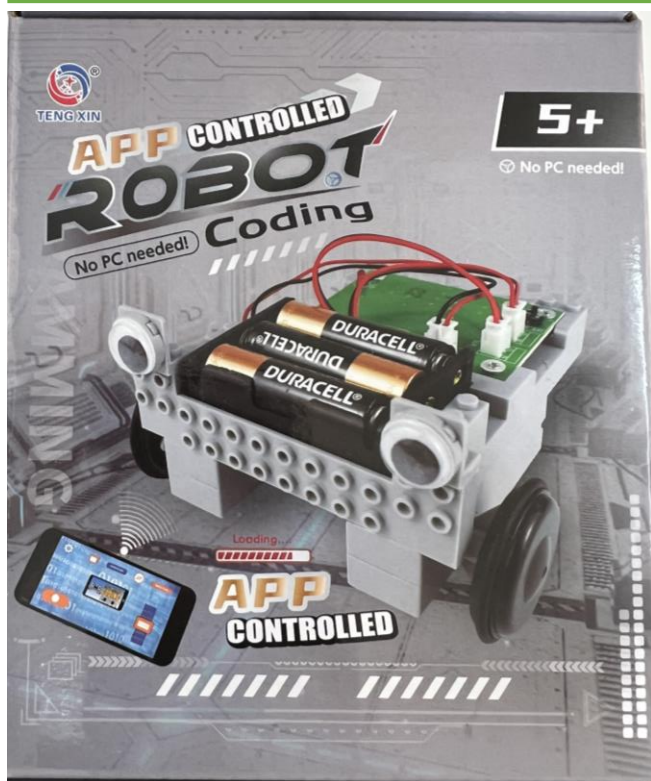
Ref : <https://www.sciencetooltrading.com/product/406/ชุด-stem-แบบ-diy-ลูกสูบแขนกลไฮดรอลิก>



Activity Information: Robot Car

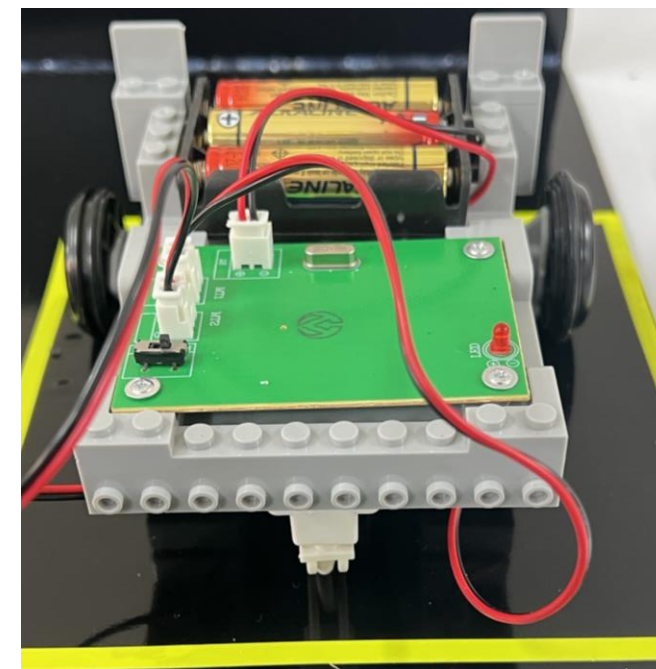


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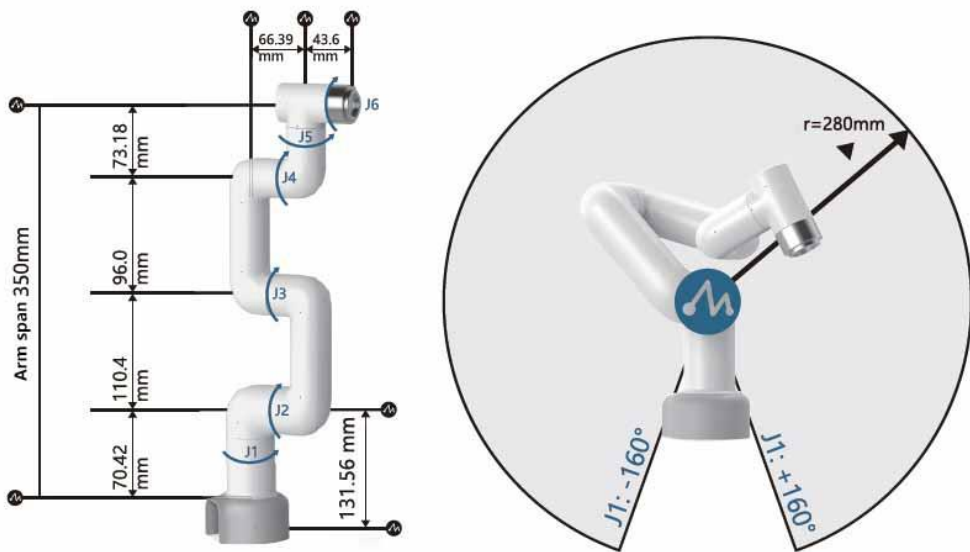
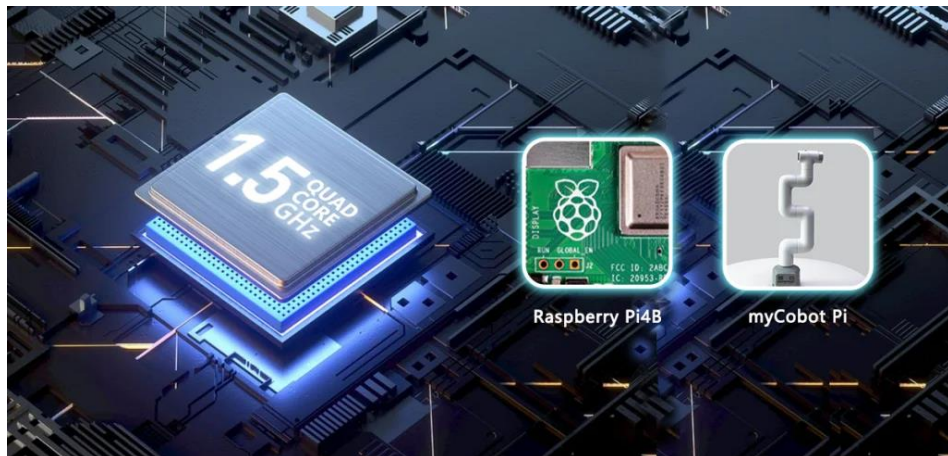
Robot Car

- Android Application
- Manual Control
- Modify car for carry the cube.





Activity Information: mycobot 280



myCobot 280

- Pick cube from robot car and place on the station 3
- Template code in Blockly program .





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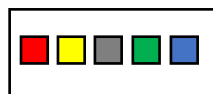
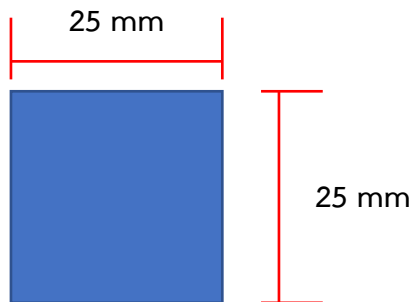
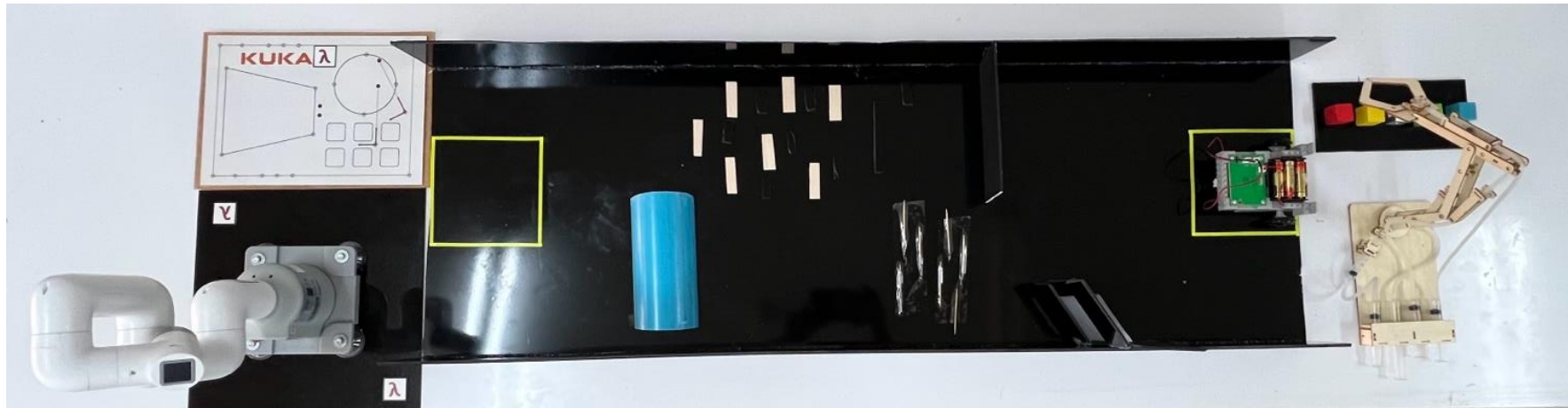
Marks & Competition:



Group	Time	Marks	Reset
A	Only 5 minutes	1 , 2 , 3 , 4 , 5 -> Cube	Reset Count

Note :

- Have 5 Race Tracks
- The score will count in these conditions: less time, more marks, less reset.
- Can modify gripper and carry set on robot car.
- Time will count from start until finish competition. (If reset , time will count until 5 minutes)



- The cubes will be random before start competition.

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Q&A :



产品零件配图

产品包装图

附带说明书

液压机械臂

Hydraulic mechanical arm

作品介绍

液压机械臂是一款科学小制作的产品。通过这个小实验，孩子们了解了液压的基本原理和简单的机械构造。这款小制作主要依靠推动针管带来的动力，演示了机械手简单的工作过程。科学小制作不仅能培养孩子的动手能力、独立思考能力、想象力和创造力，还能学到宝贵的科学知识。

知识链接

液压机械臂主要采用液压的基本原理知识。当推动针管，被推动针管内的压力增加，压力随着软管进入到另一端的针管，将另一端的针管能够顶出，从而形成了一个动力传输的过程。

操作步骤

“有4到了就忘记了，有6到了就忘记了，有8到了就忘记了。”

温馨提示:小朋友在制作过程中要注意安全,所有零件不能入口,小朋友请在家长或者老师的指导下进行操作,想要轻松完成实验,请仔细阅读说明书,不明白的地方可以查看视频或者咨询老师帮助!

1

如图将4个软管依次安装在5mm转筒上
(见图材料表)

2

如图安装好的1号木板在底座加上

3

如图把3个2号板卡在1号板上和底座上

4

如图将3号板安装,注意要卡住转筒

5

如图4号板安装好,用螺丝固定

6

如图把5号板用螺丝固定在4号板上

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