Vex Cortex - Conveyor Belt - Robot Club Project Status

Project Start Date: 12/13/2023
2022-2023 Team Members: Yen Vy Tran Hoang, ??

Overview:

We are going to build a small Conveyor belt using the Vex Cortex, maybe an arduino, and some sensors.

Project Resources & Links:

This is a list of project resources and links. It includes links to data sheets, tutorials, Youtube, or other sites with relevant information for this project.

- https://www.instructables.com/DIY-Conveyor-belt/
- https://www.instructables.com/MODULAR-PORTABLE-CONVEYOR-BELT-SPEED-CONTROL-BY-AR/
- https://www.instructables.com/Conveyor-Belt-1/
- https://www.instructables.com/littleBits-Mini-Conveyor-Belt/
- https://www.instructables.com/Conveyor-Belt-Marble-Loop/
-
- Conveyor Belt Guide
- How to Make a Conveyor Belt System at Home - Very Powerful
- How to Make a Conveyor Belt (very easy)

Next Steps (The Big List):

This is a list of the next steps for this project. Next time you work on it, these are the steps you are going to work on. Each time you work on this project, you might add or re-order these tasks.

- [x] ~~Research Instructables~~
- [ ] Pick an Engineering example, and design it using the Vex Cortex controller
- [ ] Are there parts we need to order or 3D Print?

12/13/2022 Let's Move Stuff

What Is The Plan Today:

Research Conveyor Belts

Planned Task List:

- ☑ ~~Research Conveyor Belts~~
- ☑ ~~Pick an Engineering Plan~~

Useful Reference Links:

- https://www.instructables.com/DIY-Conveyor-belt/
- https://www.instructables.com/MODULAR-PORTABLE-CONVEYOR-BELT-SPEED-CONTROL-BY-AR/
- https://www.instructables.com/Conveyor-Belt-1/
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-
- Conveyor Belt Guide
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- How to Make a Conveyor Belt (very easy)
-

What Did We Working On Today:

- Started looking at Instructables and other designs
- **What Worked - What Steps Did I/We Solve:**
  - Started planning

What Will We Work On Next Time?

- ☐ Are there parts we need to order or 3D Print?
- ☐

<copy text between these lines below>

<12-14-2022> <Find some design idea>

What Is The Plan Today:

Tell a short story about what you wanted to do today… Write a short paragraph of today's Project Goals…25 words

Planned Task List:

- ☐ List each
- ☐ Task you are trying
- ☐ To accomplish today

Useful Reference Links:

- https://www.instructables.com/Color-Sorting-Machine-Using-Evive-Arduino-Based-Em/ (This conveyor belt can separate the package in different color)

What Did We Working On Today:

- Search some link have a good idea about the conveyor belt design.

- **What Worked - What Steps Did I/We Solve:**
  - Look up some link to get the idea
  - Try to draw the example
- **Challenges, Questions, or Roadblocks:**
  List all the current issues that are a challenge and preventing forward progress on this project
  - ☐ Next step..
  - ☐ Next Step…

What Will We Work On Next Time?

- ☐ (fill this out at the end of class/open lab activity time)
- ☐ List your next 2-5 steps or activities.
- ☐ This is key!!!
- ☐ You need to be thinking about this project as a whole, and break it down into
- ☐ small tasks you can complete in 30-60 min
- ☐ Be sure these items get on your Big list

<12-16-2022>

What Is The Plan Today:

Try to find something that needs to be made into a conveyor belt.

Planned Task List:

- ☐ List each

- [ ] Task you are trying
- [ ] To accomplish today

Useful Reference Links:

- https://www.iqsdirectory.com/articles/conveyor-belts.html
-

What Did We Working On Today:

- Enter class lecture notes, Team notes, Discussions and Brainstorming topics here. Describe the steps/challenges you are working on. Make sure you describe how you set up the experiment, how you executed it, and all the materials you needed to do it. Spend time writing your "reflections". Sometimes more important than the actual results, are your thoughts on "why" and "how". Here is where you accurately describe both the success and failures. be sure to make entries, so that it is clear who worked on what part of today's entry.
- If you make mistakes in the data collected, document the mistake and highlight it with a comment, so you don't lose the work. Don't just delete it. Where did you get stuck? A detailed description of issues you got stuck on or did not understand.
- Include pictures, Code or links to Code, and links to reference material.
- **What Worked - What Steps Did I/We Solve:**
  - Short description of what your team did today… Date driven... as you enter entries, keep the latest at the top. Also, whenever you post an update here, also update the Project Resource Page as well…
  - Other things that worked…

- **Challenges, Questions, or Roadblocks:**
  List all the current issues that are a challenge and preventing forward progress on this project
  - [ ] Next step..
  - [ ] Next Step…

What Will We Work On Next Time?

- [ ] (fill this out at the end of class/open lab activity time)
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<01-30-2023>

What Is The Plan Today:

Try to find some more designs of conveyor belt using Vex Cortex.

Planned Task List:

- ☐ List each
- ☐ Task you are trying
- ☐ To accomplish today

Useful Reference Links:

- https://www.vexforum.com/t/project-conveyor-belt-vex-robotics/37021
-

What Did We Working On Today:

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<copy text between these lines above>

<02-02-2023> Cut stuff

What Is The Plan Today:

The plan today is to go to the robot club. Put some stuff together.

Planned Task List:

- [ ] List each
- [ ] Task you are trying
- [ ] To accomplish today

Useful Reference Links:

- https://gallery.autodesk.com/fusion360/projects/conveyor-belt-vex-robotics---esteira-transportadora
-

What Did We Working On Today:

- Find some bar to connect it together
- Thinking how long should we do
- **What Worked - What Steps Did I/We Solve:**
    - Cut out some long bars into the long that we want

- **Challenges, Questions, or Roadblocks:**
  List all the current issues that are a challenge and preventing forward progress on this project
    - [ ] Next step..
    - [ ] Next Step…

What Will We Work On Next Time?

- [ ] (fill this out at the end of class/open lab activity time)
- [ ] List your next 2-5 steps or activities.
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<02-03-2023> connect some part

What Is The Plan Today:

Connect some part together

Planned Task List:

- [ ] List each
- [ ] Task you are trying
- [ ] To accomplish today

Useful Reference Links:

- Useful link
-

What Did We Working On Today:

- Do the base of the conveyor belt
- **What Worked - What Steps Did I/We Solve:**
    - Finish the bottom on the conveyor belt

- **Challenges, Questions, or Roadblocks:**
  List all the current issues that are a challenge and preventing forward progress on this project
    - [ ] Next step..
    - [ ] Next Step…

What Will We Work On Next Time?

- [ ] …
- [ ] …
- [ ] …

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Soldering Ki

2021-2022 Team Members: Evan Tran, Viet Bui

Backup Template

<copy text between these lines below>

<Date>

What Is The Plan Today:
Try to find something that needs to be made into a conveyor belt.

Planned Task List:

- ☐ List each
- ☐ Task you are trying
- ☐ To accomplish today

Useful Reference Links:

- Useful link
-

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Historical Team Members:

2022-2023 Team Members: