Weekly Presentation
Week 40

Luleå University of Technology

September 28, 2020

Group members

- Y-students
  - ▶ Martin Blaszczyk - Project leader and object detection
  - ▶ Edward Cedergård -Arm and gripping tool
  - ▶ Niklad Dahlqvist - Arm and gripping tool
  - ▶ Måns Norell - Movable base
- D-students
  - ▶ Edward Källstedt - Object detection
  - ▶ Albin Martinsson - Arrowhead and Git

Overview

What we have done and what we are working on:

- Duplex to simplex
- Serial communication
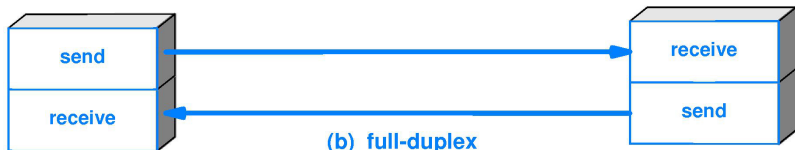- Dynamixel data packages
- Arm construction
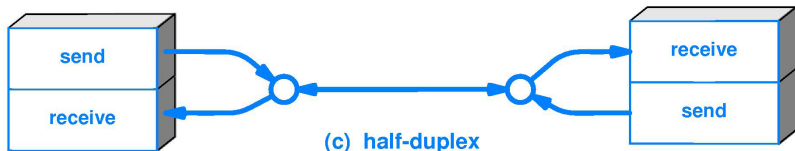
Duplex to simplex

- Raspberry pi Tx, Rx
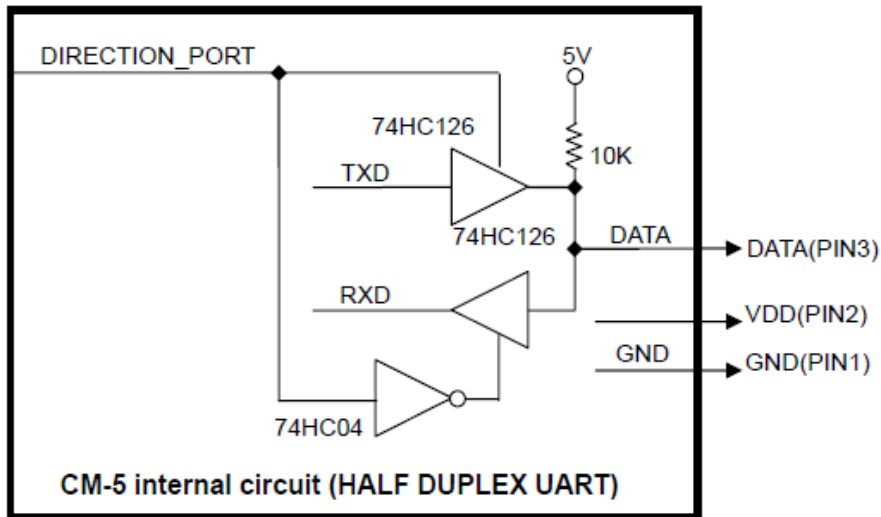- Circuit

Full-duplex to half-duplex

(a) simplex

(b) full-duplex

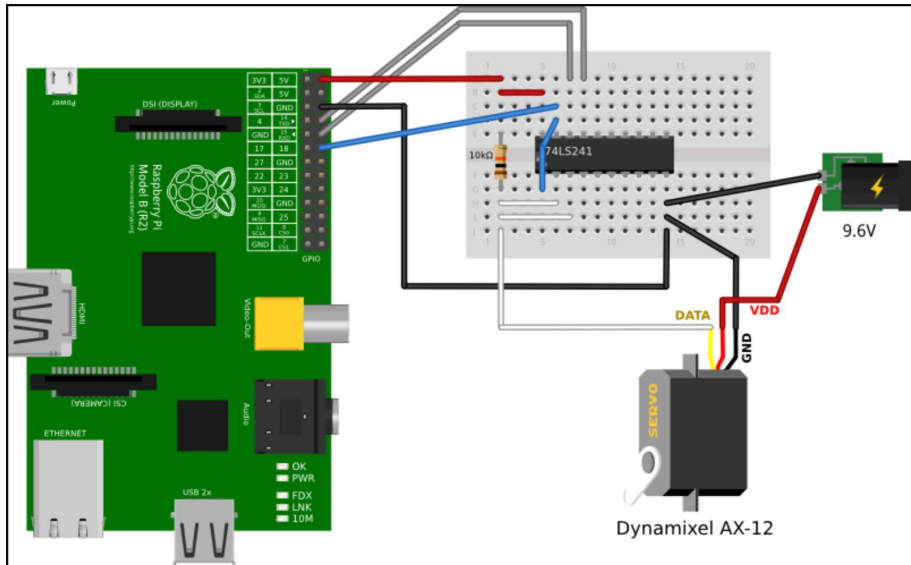(c) half-duplex

Full-duplex to half-duplex

CM-5 internal circuit (HALF DUPLEX UART)

Curcuit

Serial communication

- Logic analyzer

Dynamixel data packages

- Structure
- Response

Arm construction

- Use the official plastic pieces

Overall timetable

Sep	Oct	Nov	Dec
Concept generation	Evaluation	Evaluation	
Theory	Prototyping	Evaluation	Finishing up
Simulation	Evaluation	Evaluation	
Prototyping	Final Design	Evaluation	

Time plan for September

Subproject	Week 1	Week 2	Week 3	Week 4
Arrowhead	Reading	Setup	API	Prototyping
Movable base	Reading	Modeling	Simulation	Implementation
Arm and grip	Reading	Kinematics	Simulation	Prototyping
Object detection	Reading	Testing	Prototyping	Evaluation

Questions?