Input Hardware

1 TEMP SENSOR

2 HUMIDITY SENSOR

3 MICROPHONE

Software

DATA MANAGER

temp data → Temp data

humidity data → Humidity data

Data manager gathers and stores measurments from sensors for further using.

temp data → Temp data

humidity data → Humidity data

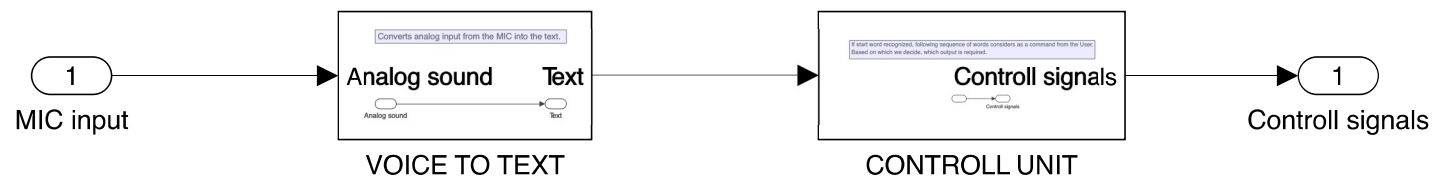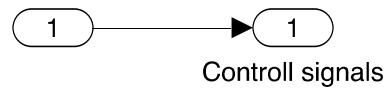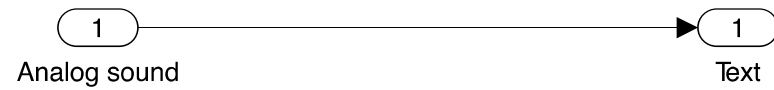### COMMAND MANAGER

MIC input → Controll signals

This block converts analog input to consiquence of words and trying to detect start word there.
If it is detected, following consequence of words considers as the command, based on the context of which controll signals for out periphery are formed.

MIC input → VOICE TO TEXT → CONTROLL UNIT → Controll signals

MUSIC SOURCE

Song request → Song

There are two options of the getting music for playing:
1. Store some amount locally, just downloaded from the internet.
2. Spotify request each time for each song.

Specific realization is on the team member, who will realize this block.

Song request → Song

DISPLAY INTERFACE

Data to show → Controll signals for the display

Realizes displaying current humidity, temp, time on the display.

Data to show → Controll signals for the display

SPEAKERS INTERFACE

Data to speak

Controll signals

Music to play

Realizes playing of asked info by the User or playing of the music.

Data to speak

Controll signals → Controll signals for the speakers

Music to play

Controll signals for the speakers

Output Hardware

1 DISPLAY

2 SPEAKERS

This block converts analog input to consiquence of words and trying to detect start word there.
If it is detected, following consequence of words considers as the command,
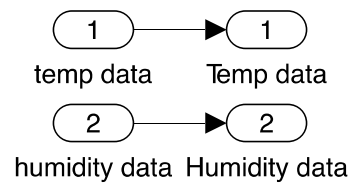based on the context of which controll signals for out periphery are formed.

1

MIC input

Converts analog input from the MIC into the text.

Analog sound   Text

Analog sound   Text

VOICE TO TEXT

If start word recognized, following sequence of words considers as a command from the User
Based on which we decide, which output is required.

Controll signals

Controll signals

CONTROLL UNIT

1

Controll signals

If start word recognized, following sequence of words considers as a command from the User.
Based on which we decide, which output is required.

1 ⟶ 1

Controll signals

Converts analog input from the MIC into the text.

1
Analog sound

1
Text

Data manager gathers and stores measurments from sensors for further using.

1	1
temp data	Temp data
2	2
humidity data	Humidity data

Realizes displaying current humidity, temp, time on the display.

| 1 | ⟶ | 1 |

Data to show   Controll signals for the display

There are two options of the getting music for playing:
1. Store some amount locally, just downloaded from the internet.
2. Spotify request each time for each song.

Specific realization is on the team member, who will realize this block.

(1) ———————→ (1)
Song request   Song

Realizes playing of asked info by the User or playing of the music.

1
Data to speak

2
Controll signals

3
Music to play

1
Controll signals for the speakers