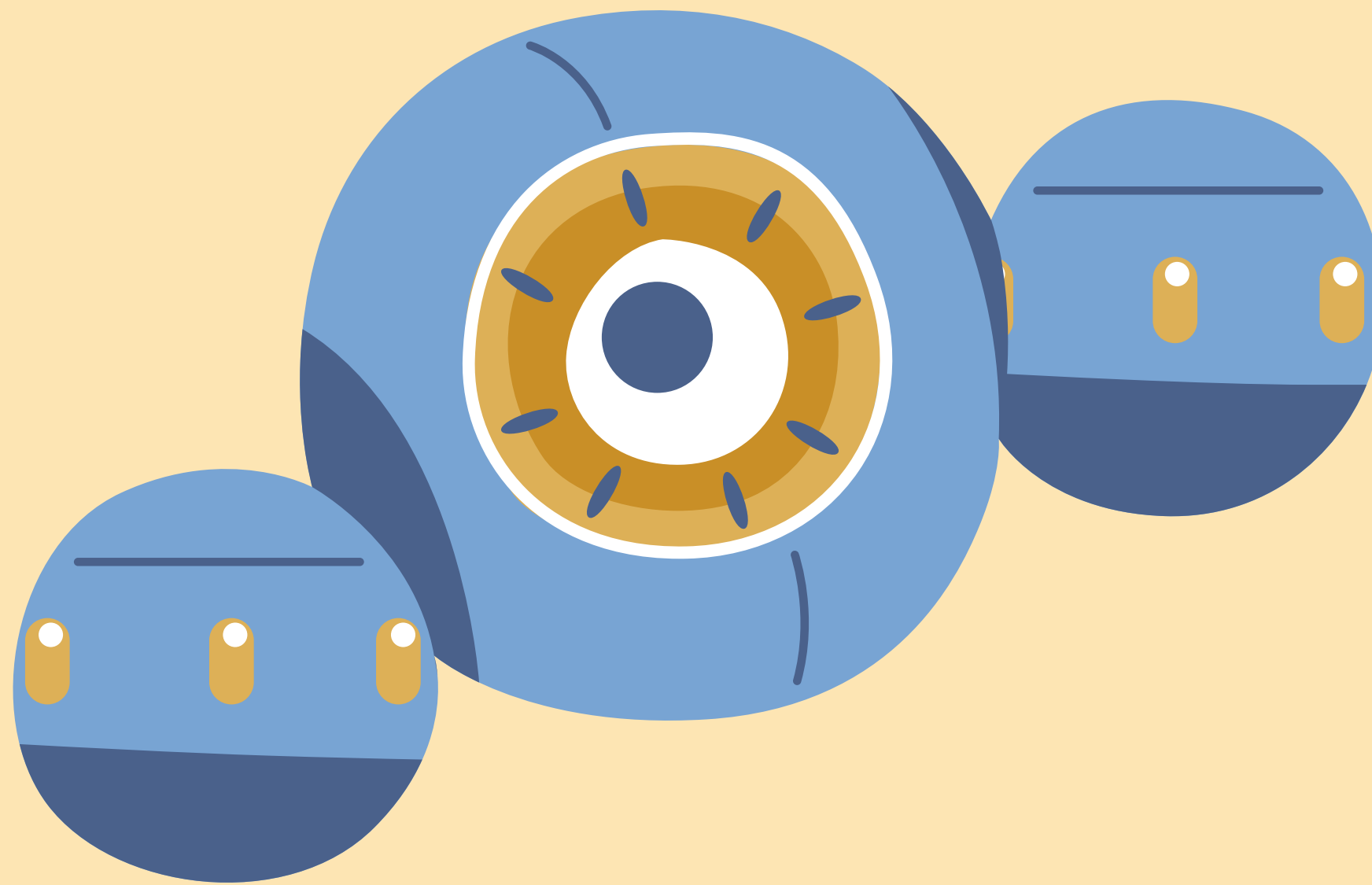


DASH ROBOT JA LIHTNE PROGRAMMEERIMINE LASTEAIAS



Meie meeskond:

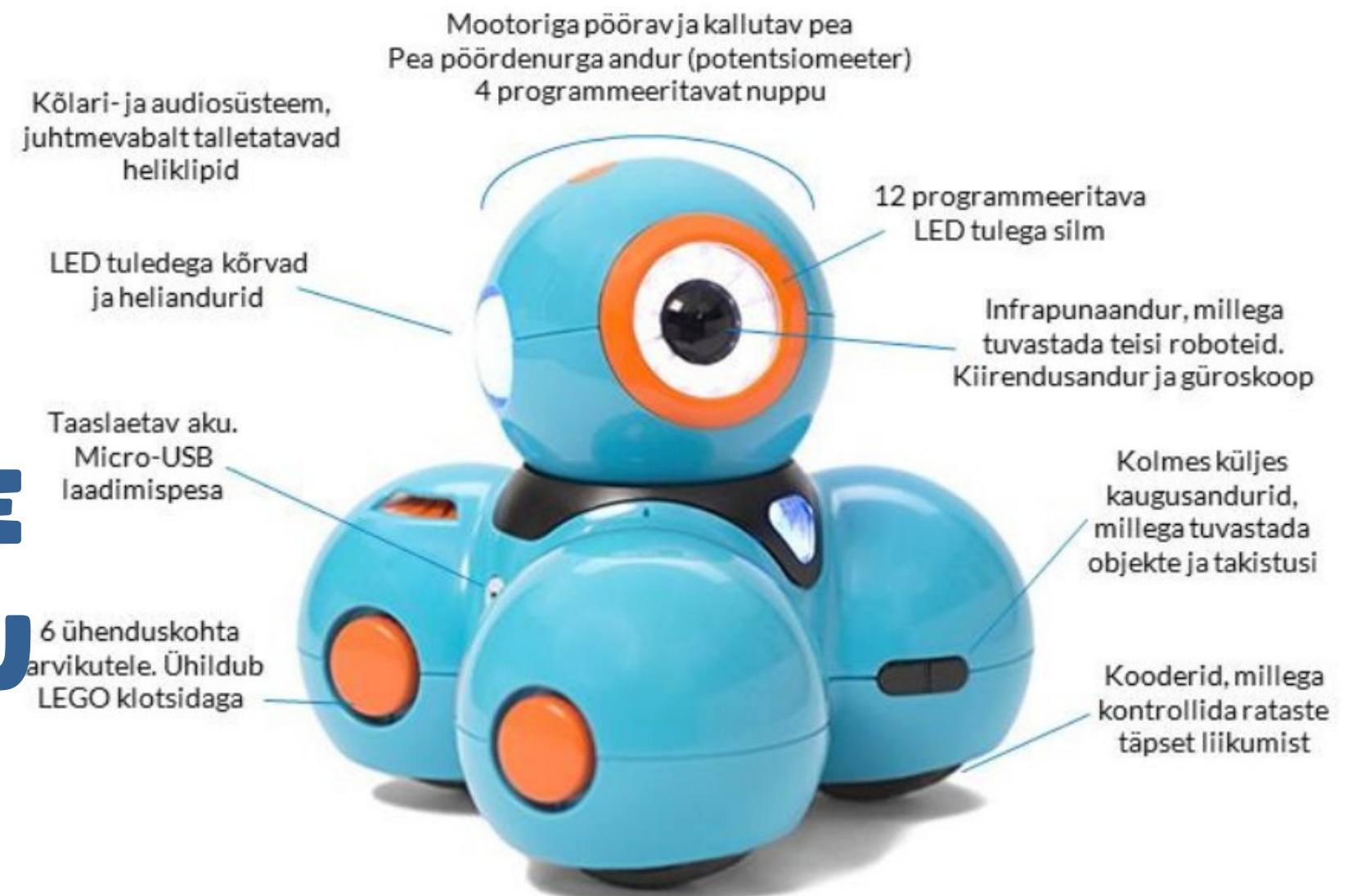
Anneli

Valeria

Viktoria

MIS ON DASH?

- **HARIDUSROBOT**
- **REAGEERIB HELILE, LIIKUMISELE, PUUDUTUSELE.**
- **PROGRAMMEERITAV ÄPPIDE VÕI VEEBIKESKKONNA KAUDU**



DOT

- **KÕRVADES JA RINNAL ON RGB LEDID.**
- **SISSE PROGRAMMEERITUD HELID**
- **MIKROFON, MIS VÕIMALDAB KUULDA HÄÄLT.**
- **PEA PEAL ON 4 PROGRAMMEERITAVAT NUPPU**
- **KIIRENDUSANDUR TUNNETAB DOTI LIIKUMIST**



DASH JA DOT ROBOOTIKAKOMPLEKT



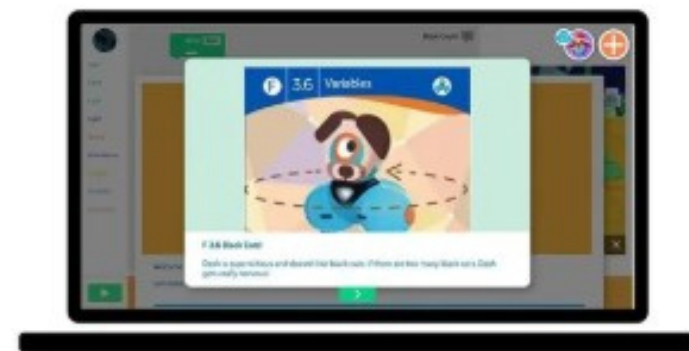
Gripper



Dash Sketch Kit



Launcher



Digital Challenge Cards



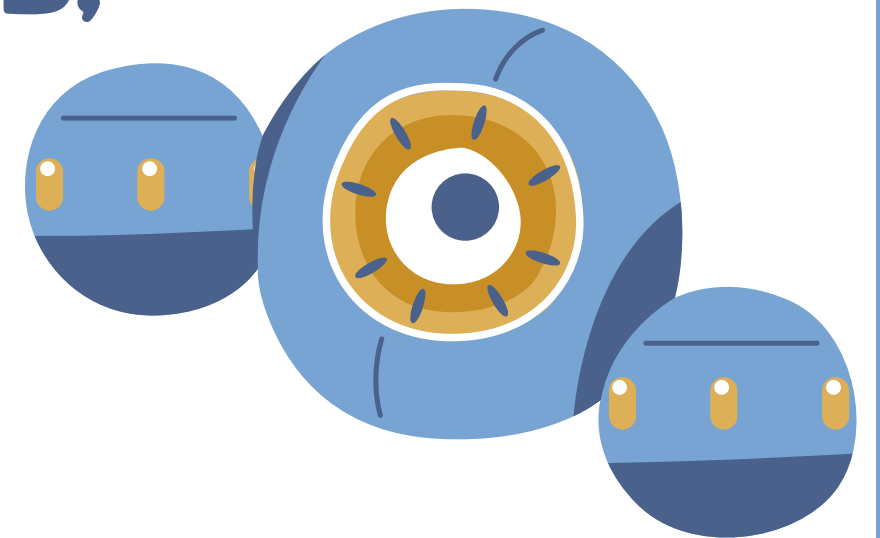
Building Bricks



KELLELE SOBIB?

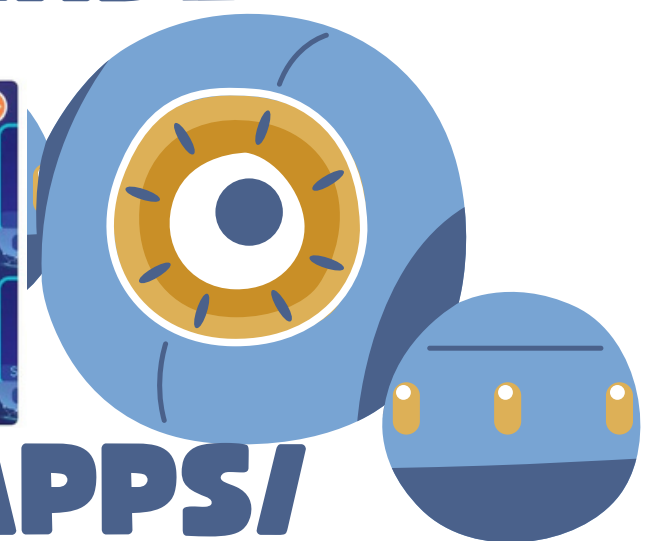
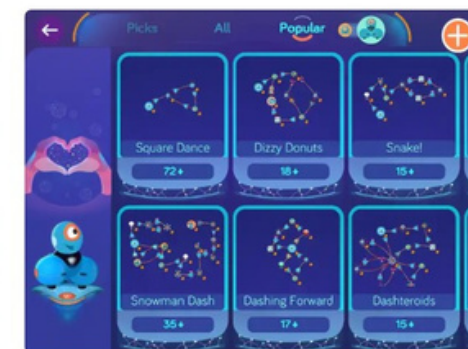
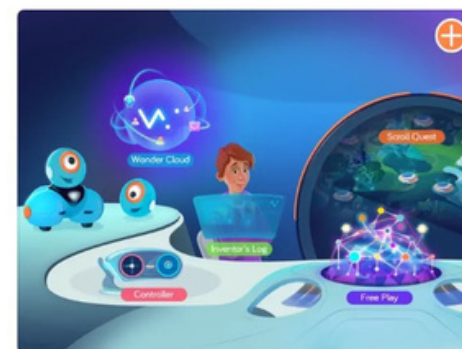
- **VANUS: 5-12+**
- **EELTEADMISED: PUUDUVAD**
- **KUS SAAB KASUTADA?:**

**L/A TEGEVUSED, ROBOOTIKATUNNID KOOLIS,
HUVIRINGID, KODUÕPE**



ÄPID JA KESKKOND WONDER

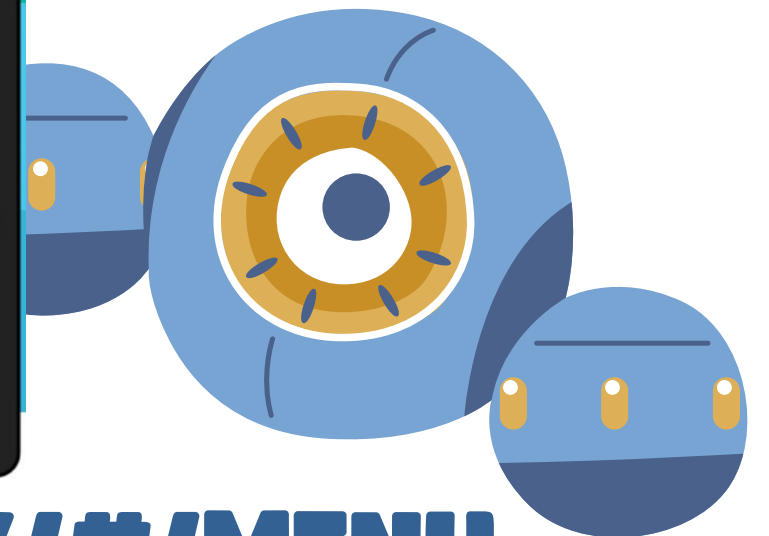
- **WONDERI ABIL LOOVAD LAPSED JÄLGITAVAD KOODITEID, MIS AITAVAD NEIL NÄHA JA MÕISTA, MIDA NENDE ROBOT TEEB KÄEGAKATSUTAVAMAL VIISIL. WONDER TARKVARA TÄHENDAB, ET LAPSED SAAVAD ROBOTIT PROGRAMMEERIDA KA MITME ÜLESANDE PARALLEELSEKS TEGEMISEKS.**



[HTTPS://WWW.MAKEWONDER.COM/EN/APPS/](https://www.makewonder.com/en/apps/)

ÄPID JA KESKKOND BLOCLY

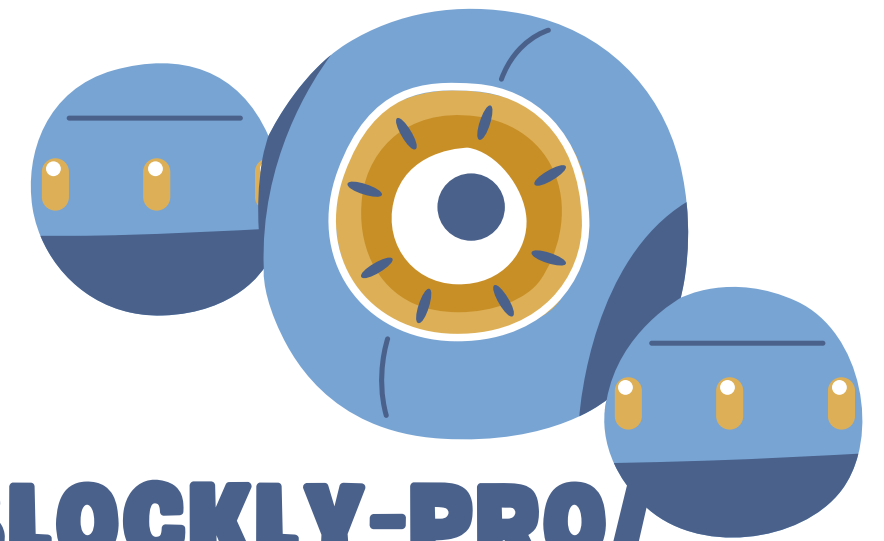
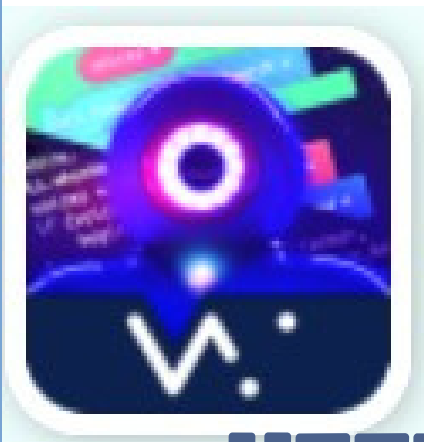
- **BLOCKLY TUTVUSTAB PÕHILISI JA TÄIUSTATUD KODEERIMISKONTSEPTSIOONE MÄNGULISTE PROJEKTIDE JA MÕISTATUSTE KAUDU. LAPSED ÕPIVAD KODEERIMISE KOHTA TUNDMA MUUTUJAID, SÜNDMUSI, TINGIMUSTINGIMUSI JA MUUD.**



[HTTPS://CODE.MAKEWONDER.COM/BLOCKLY/#/MENU](https://code.makewonder.com/blockly/#/menu)

ÄPID JA BLOCKLY PRO

- **GOOGLE CHROME'IS JA TASULISE MAKE WONDERI TELLIMUSEGA SAADAVAL OLEV BLOCKLY PRO VÕIMALDAB LASTEL MINNA ÜLE PLOKIPÕHISELT KODEERIMISELT JAVASCRIPTI KODEERIMISELE JA SEDA KÕIKE DASHI TOITEALLIKANA.**



[HTTPS://WWW.MAKEWONDER.COM/EN/APPS/BLOCKLY-PRO/](https://www.makeawonder.com/en/apps/blockly-pro/)

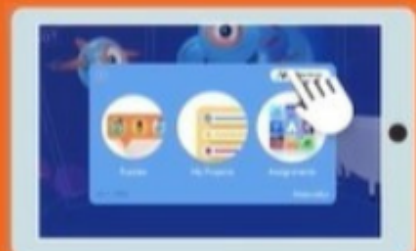


ÕPILASTE ÜHENDAMINE BLOCKLYGA

iOS-i jaoks

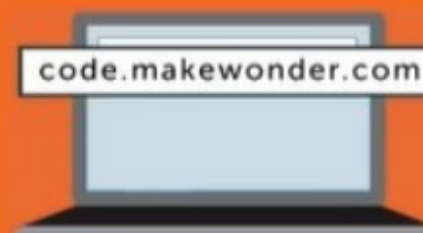


**Ava Blockly
rakendus**

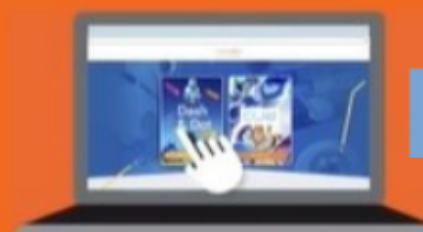


**Vajuta „Tee Wonder
Code“ (Make
Wonder) nuppu**

Chrome'i brauseri jaoks



Mine aadressile code.makewonder.com

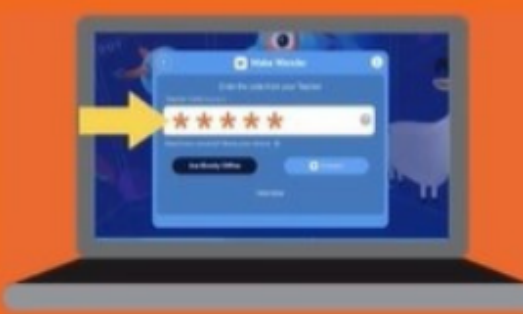


**Vajuta „Mängi Dash & Dot'iga“
(Play with Dash & Dot) ja seejärel
„Blockly“**

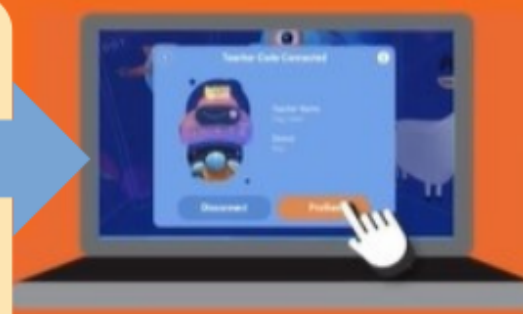


**(Ainult esmakordsetele külastajatele)
Vajuta „Olen õpilane“ (I'm a student)**

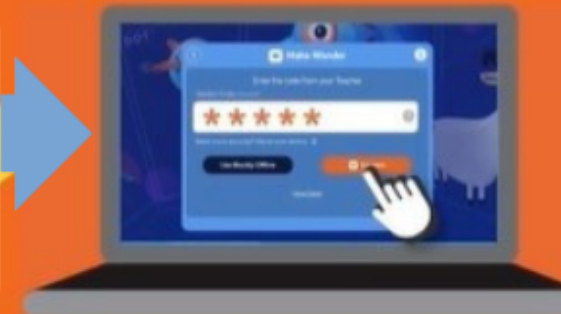
Mõlema jaoks (iOS & Chrome)



**Sisesta Make
Wonder kood
suurde valgesse
kasti**



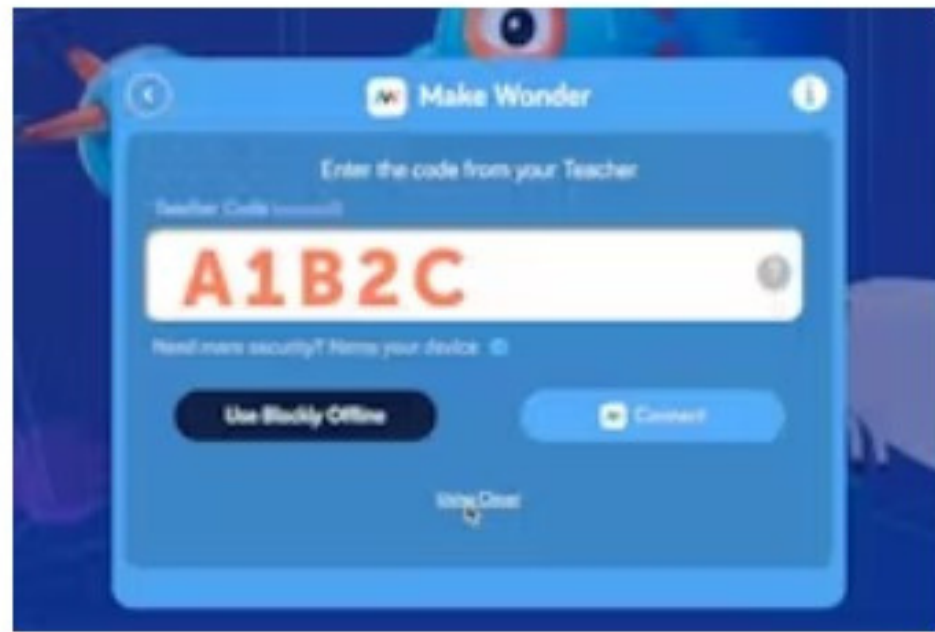
**Vajuta „Ühenda“
(Connect) nuppu**



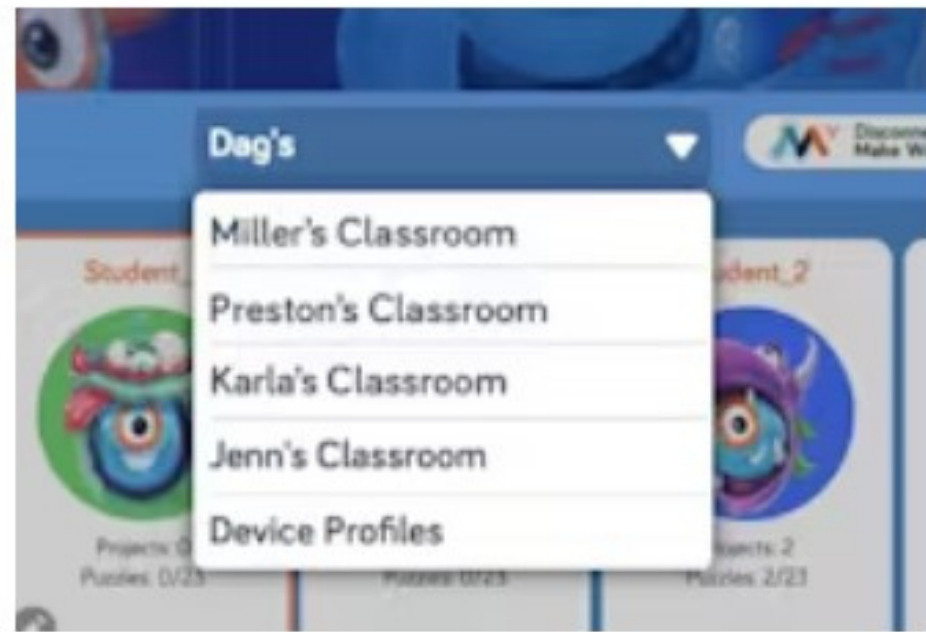
**Vajuta oranži
„Profiilid“
(Profiles)
nuppu**

Sa oled valmis alustama Blockly kasutamist!

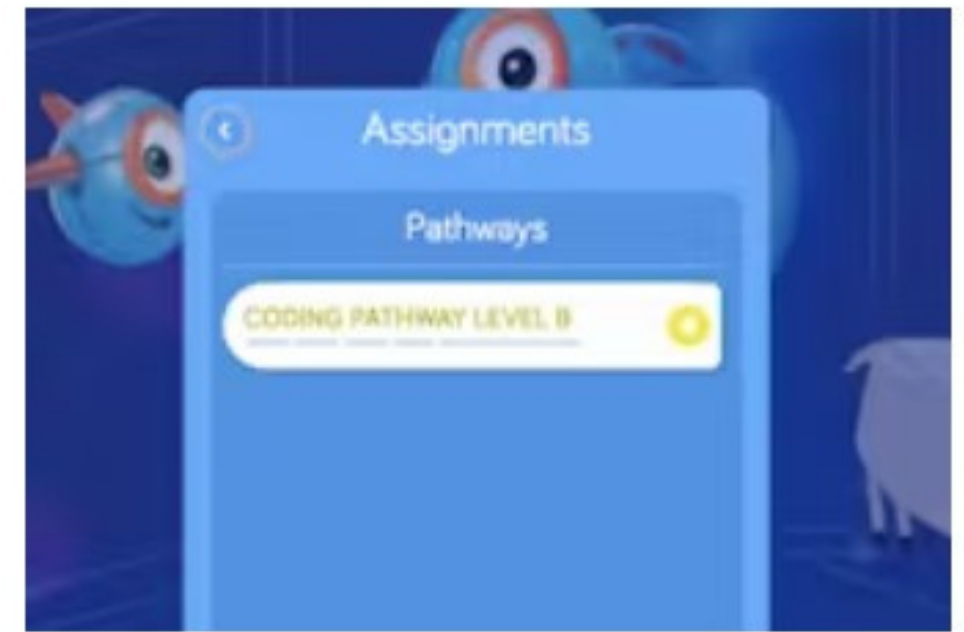
ÕPILASE SAMMUD BLOCKLYS:



1.samm:
Lisa Wonder
Code

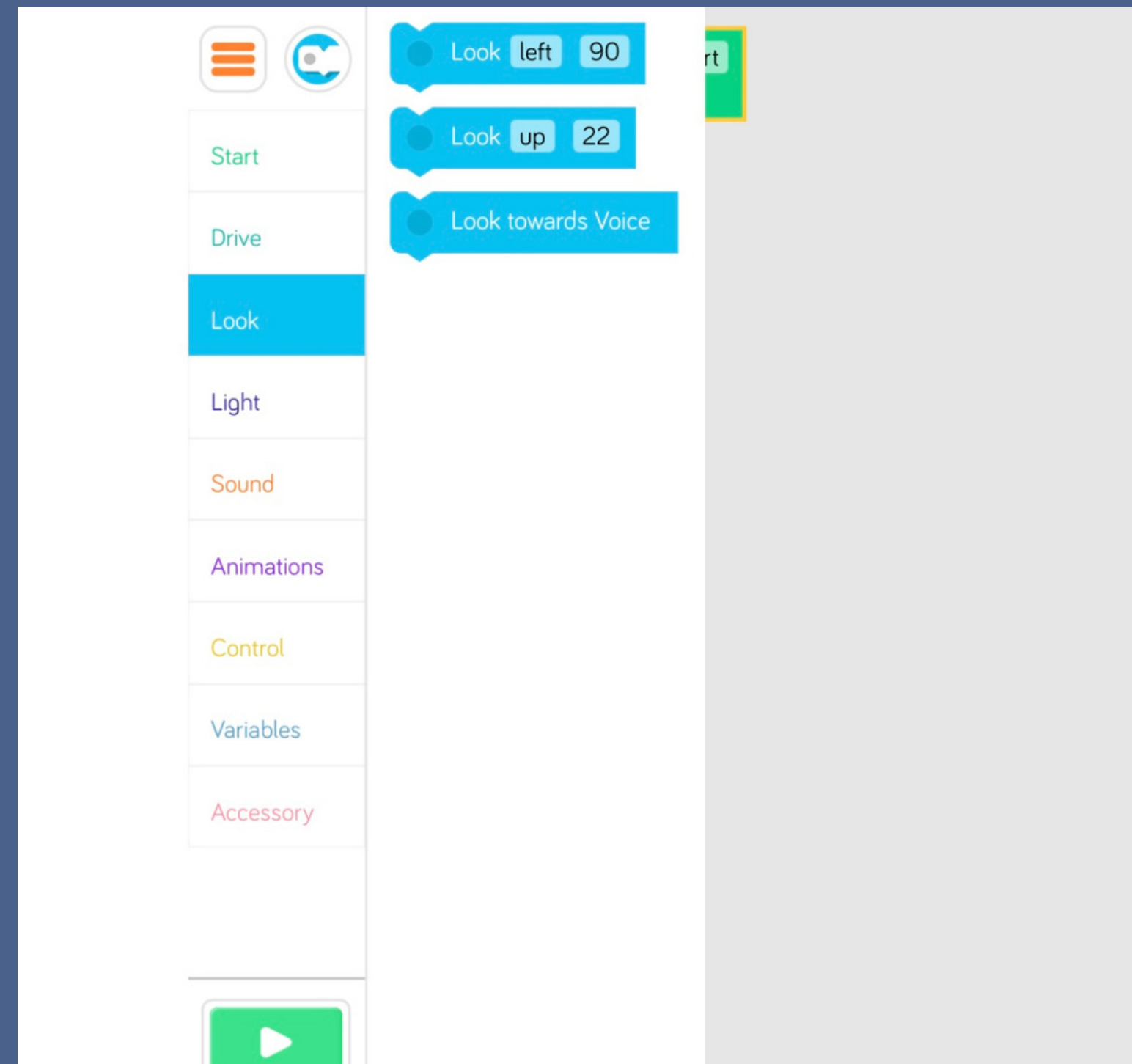
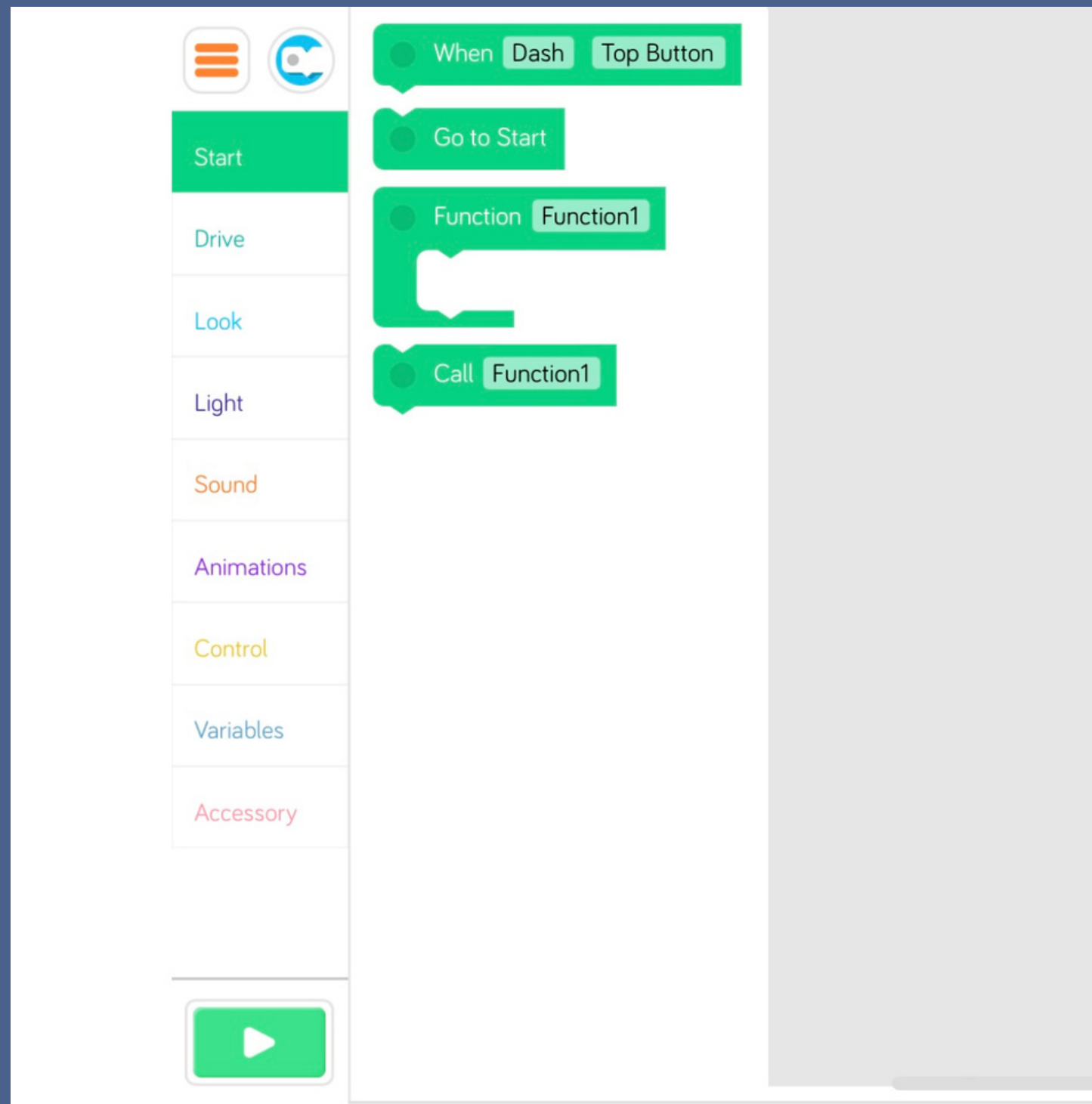


2.samm:
Vali klass ja
profiil

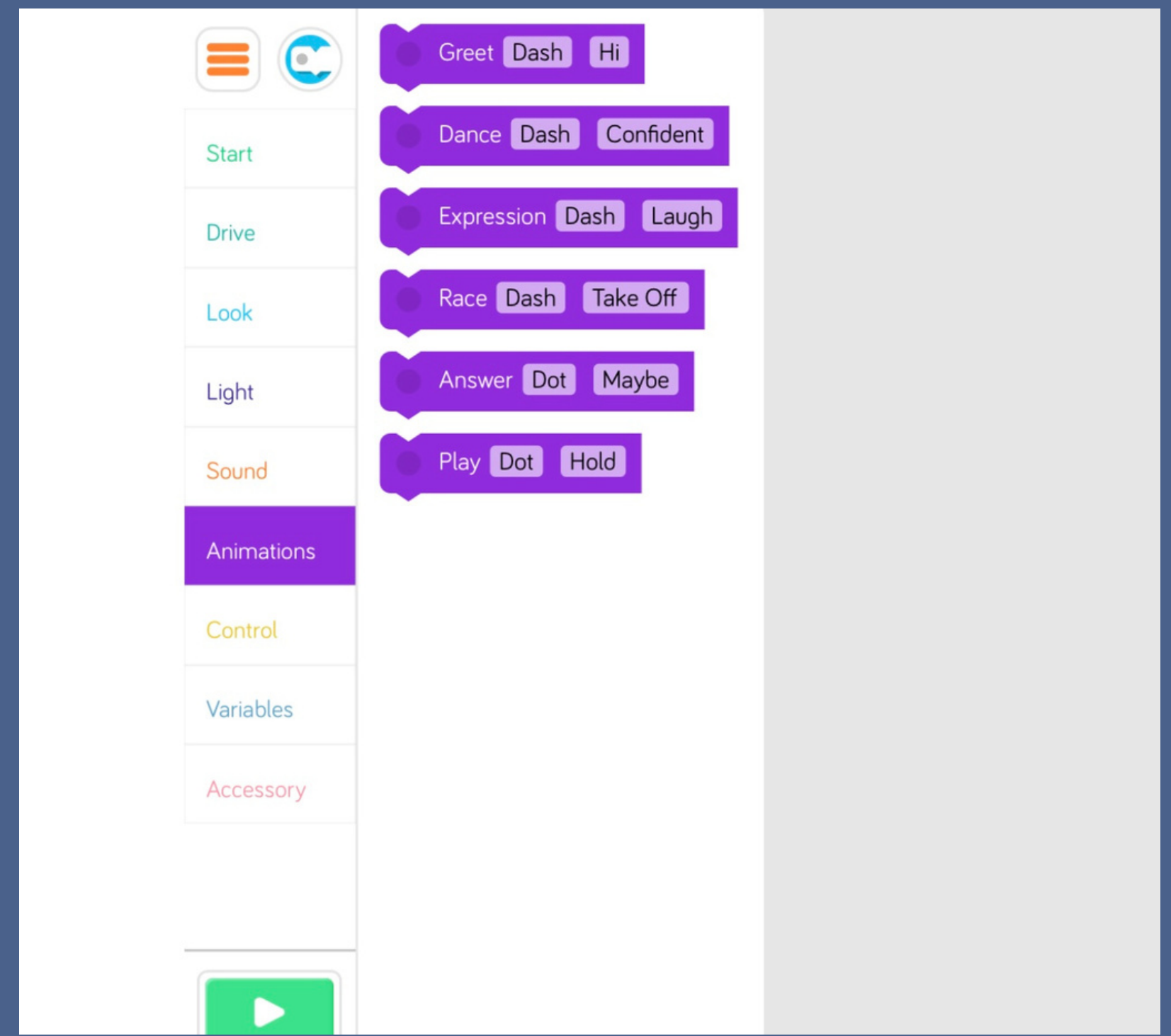
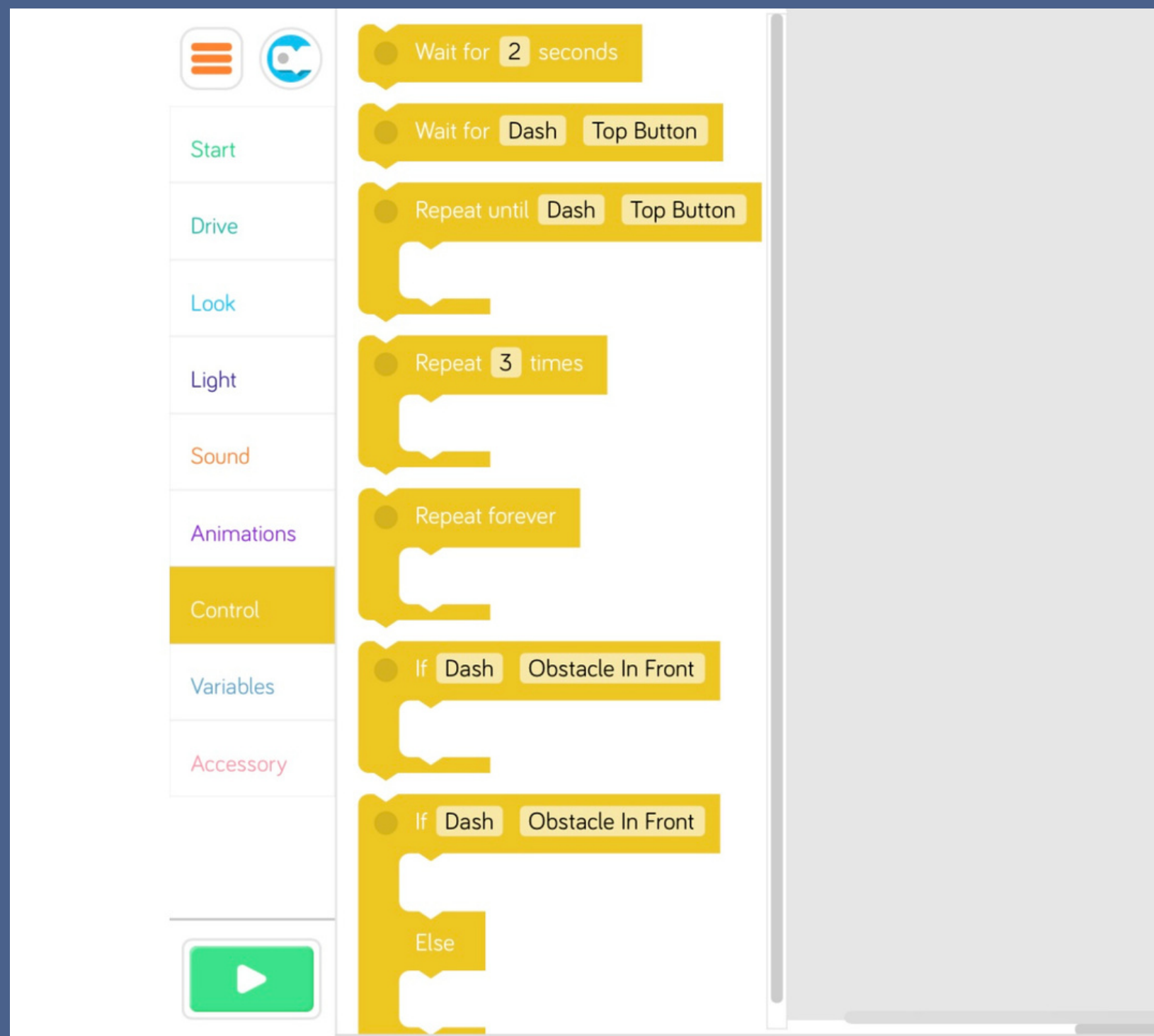


3.samm:
Täida
ülesanded

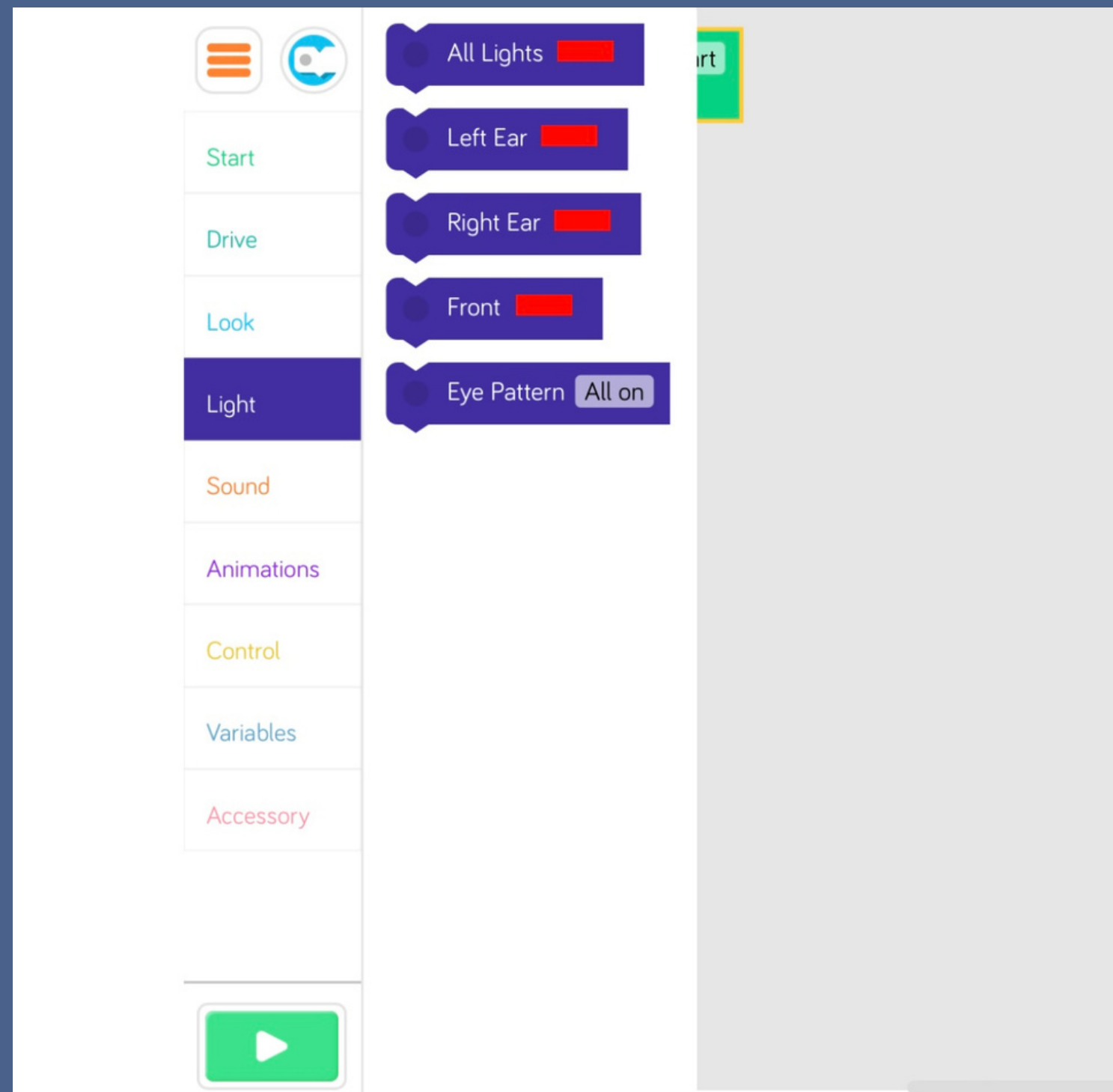
PÕHIFUNKTSIOONID



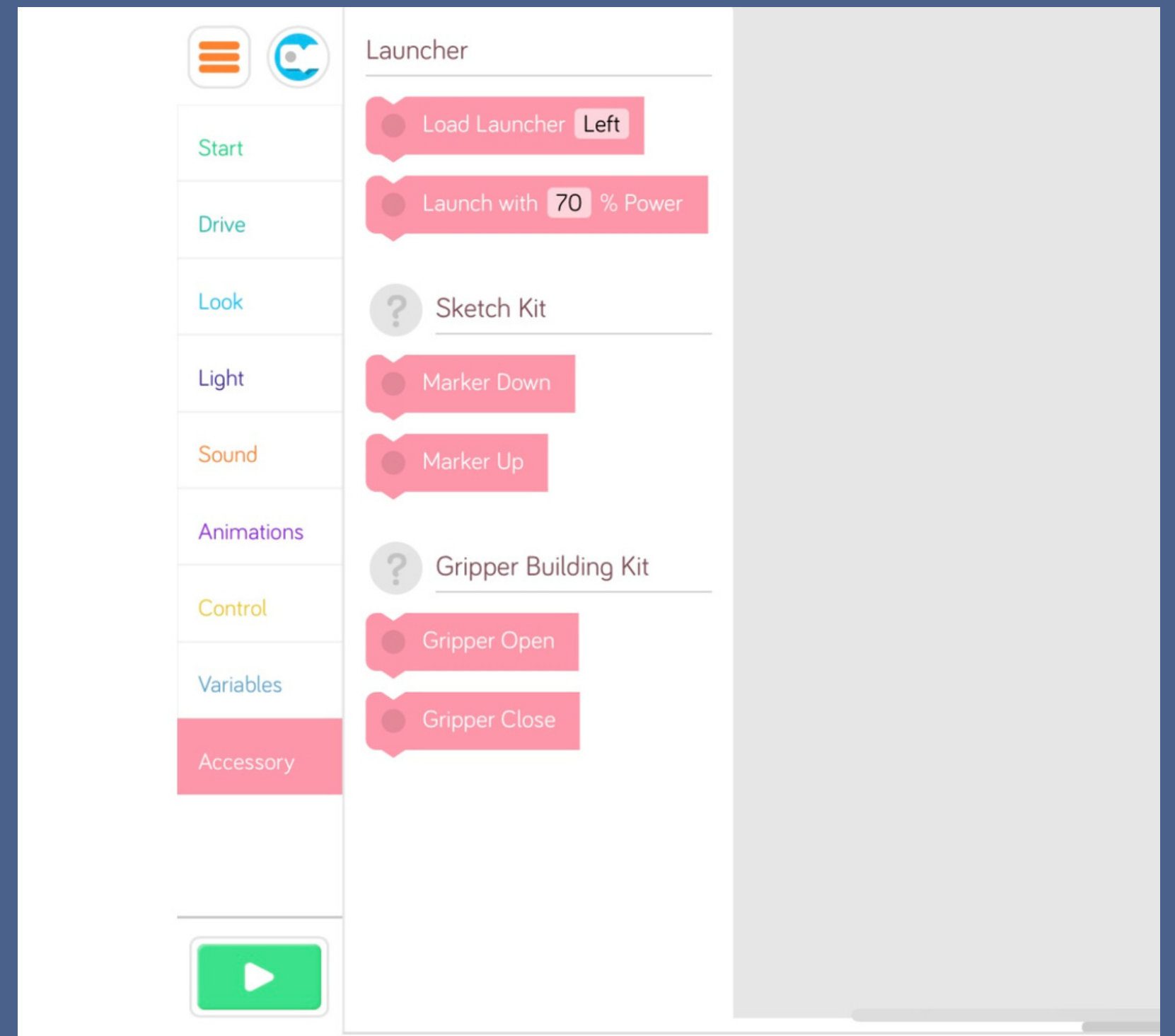
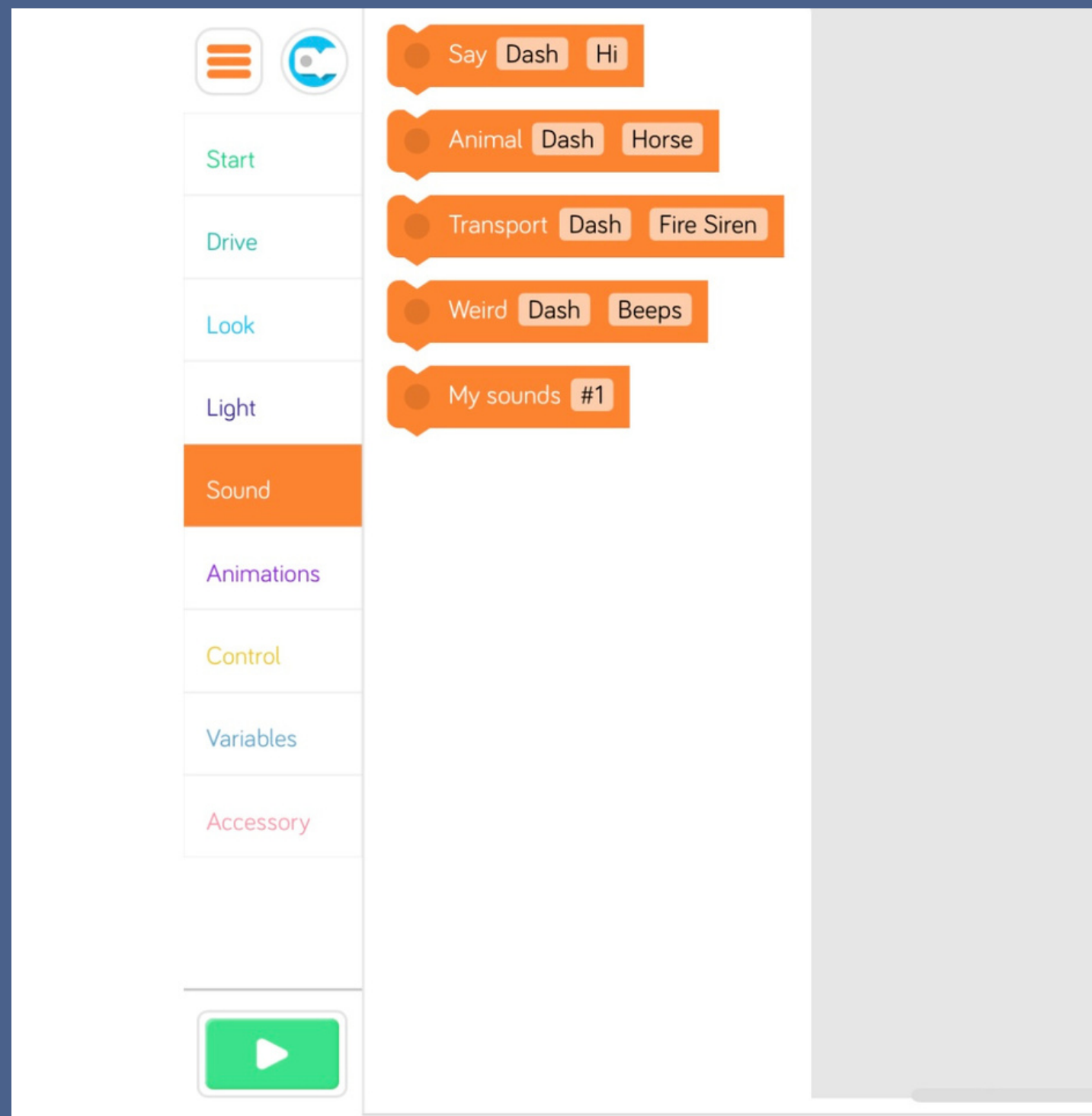
PÕHIFUNKTSIOONID



PÕHIFUNKTSIOONID



PÕHIFUNKTSIOONID



NÄIDIS

A Scratch script for a robot simulation. The script is built using blocks from the 'Start', 'Drive', 'Look', 'Sound', and 'Control' categories. It begins with a 'When Start' block, followed by a 'Wait For' block for 'Dash' and 'Obstacle In Front'. This is followed by a 'Say' block with the text 'Uh oh!'. Then, the robot moves 'Backward' by 30 units at 'fast' speed. It then looks 'left' and 'right' by 90 degrees, and finally 'forward' by 0 degrees. After another 'Wait For' block for 'Dash' and 'Object Behind', it says 'Uh oh!' again, moves 'Forward' by 30 units at 'fast' speed, and finally turns 'Right' by 180 degrees. The script is displayed on a light gray background with a sidebar on the left containing category tabs: Start, Drive, Look, Light, Sound, Control, and Variables. A 'Reset' button is located in the bottom right corner, and a 'Need a hint?' button is at the bottom center.

```
graph TD; Start[When Start] --> WaitFront[Wait For Dash Obstacle In Front]; WaitFront --> SayUhOh1[Say Uh oh!]; SayUhOh1 --> Backward[Backward 30 fast]; Backward --> LookLeft[Look left 90]; LookLeft --> LookRight[Look right 90]; LookRight --> LookForward[Look forward 0]; LookForward --> WaitBehind[Wait For Dash Object Behind]; WaitBehind --> SayUhOh2[Say Uh oh!]; SayUhOh2 --> Forward[Forward 30 fast]; Forward --> TurnRight[Turn Right 180];
```

Start

Drive

Look

Light

Sound

Control

Variables

When Start

Wait For Dash Obstacle In Front

Say Uh oh!

Backward 30 fast

Look left 90

Look right 90

Look forward 0

Wait For Dash Object Behind

Say Uh oh!

Forward 30 fast

Turn Right 180

Reset

Need a hint?

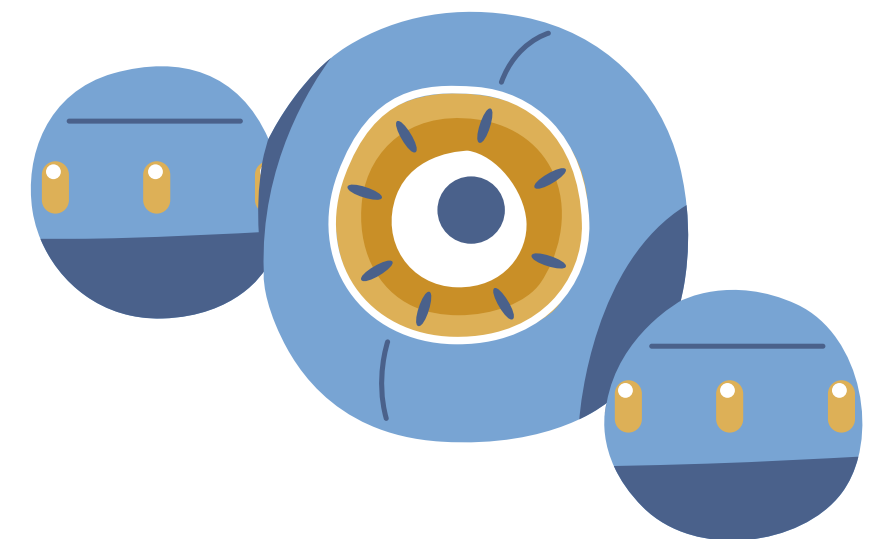
TÄNA

- **LIITU KLASSIGA (VÕIB TEHA RÜHMATÖÖNA)**
- **KIRJUTA OMA VÄIKE PROJEKT**
- **PROOVI**

MINE:

ÄPP BLOCKLY/STUDENT

KLASSI KOOD: ...



**TÄNAME TÄHELEPANU
EEST!**