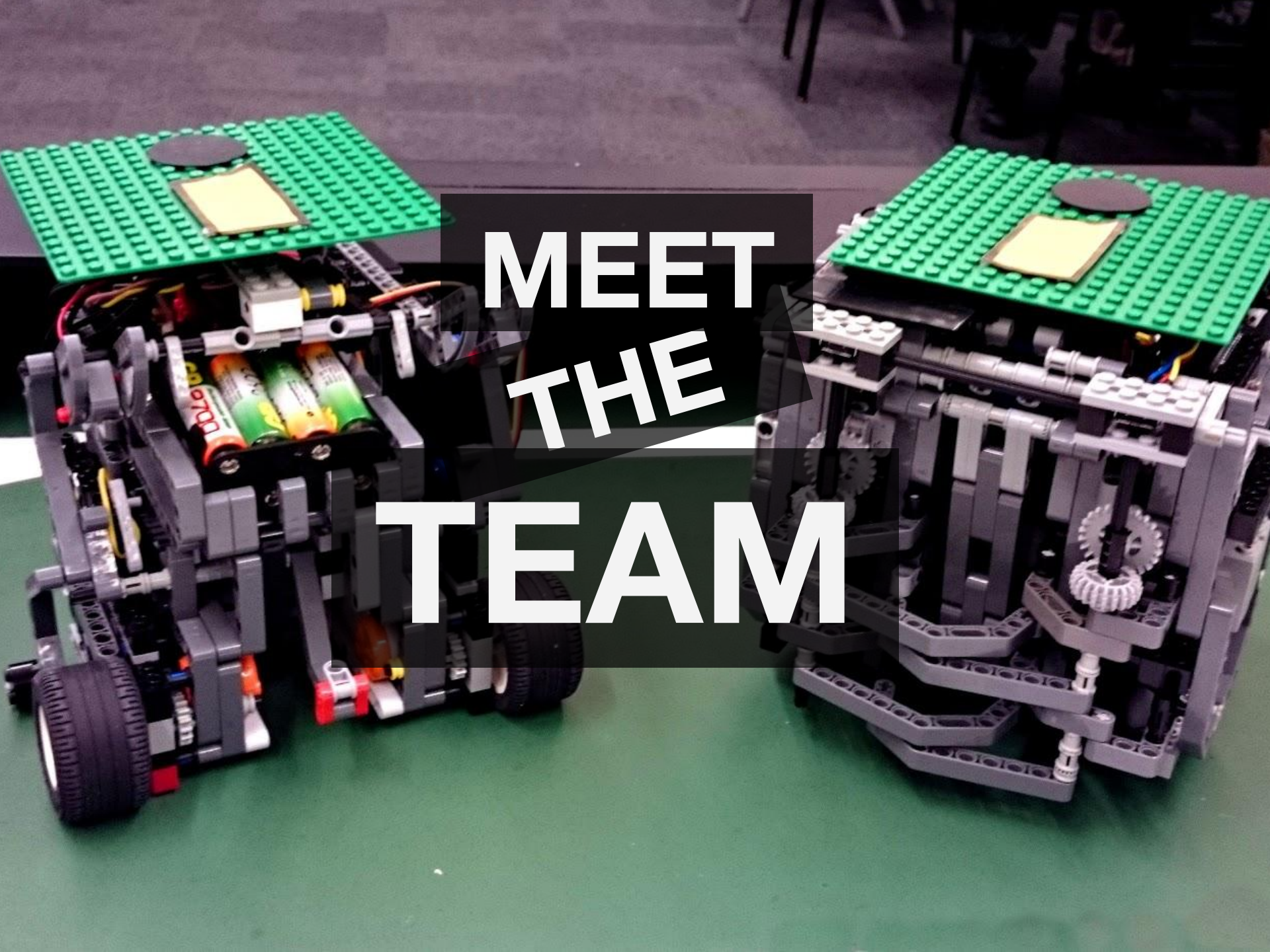
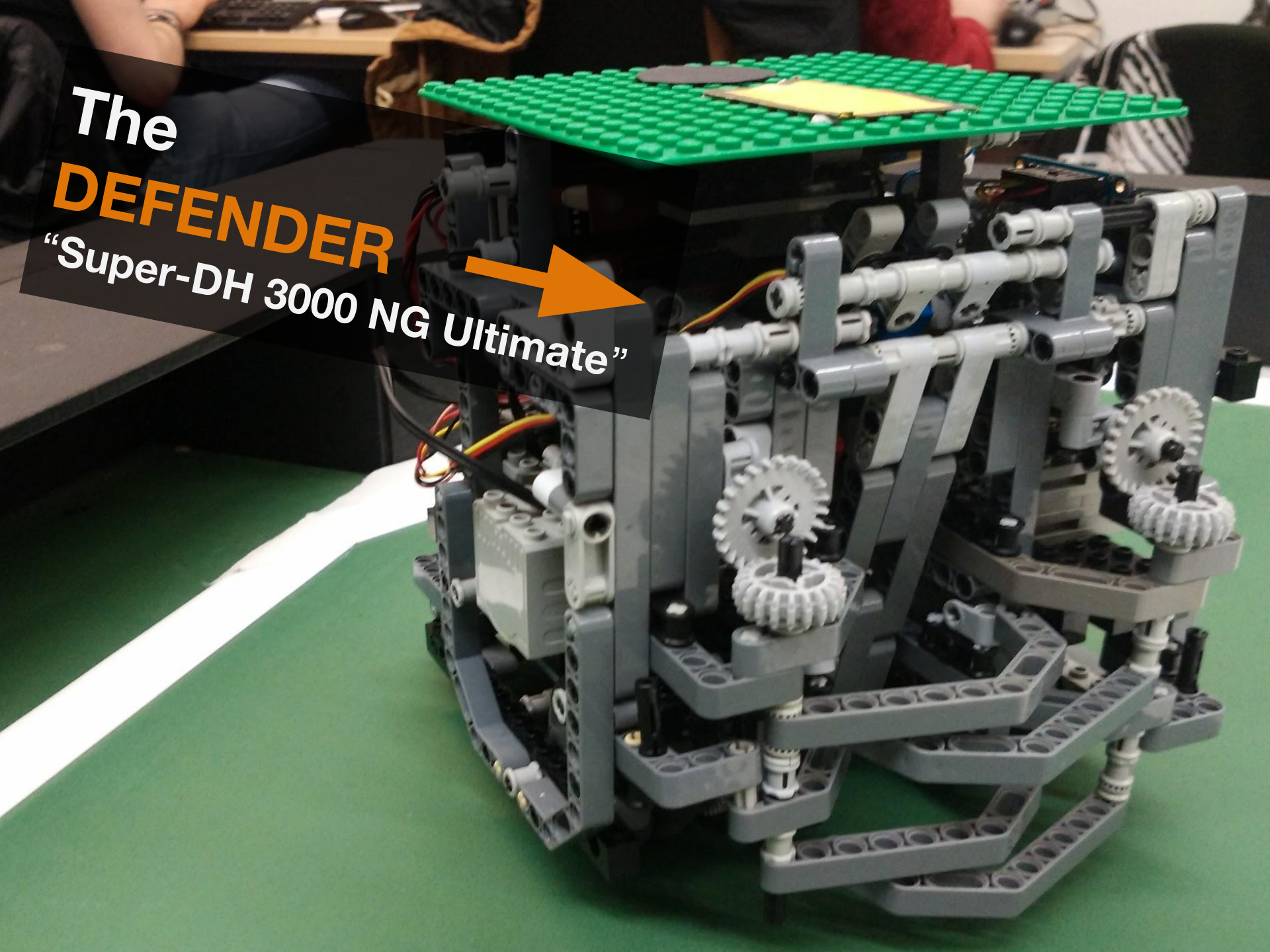


Team D

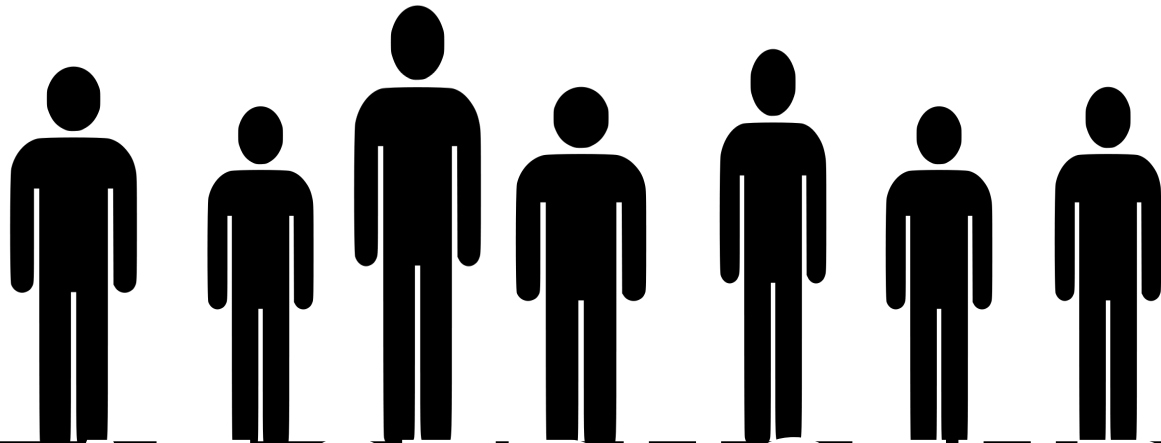




MEET THE TEAM



The
DEFENDER
"Super-DH 3000 NG Ultimate"



FLAT STRUCTURE



THE ARDUINO IS PRETTY
POWERFUL ...

... WHICH ALLOWED US TO
OFFLOAD

A LOT OF PROCESSING FROM THE PC

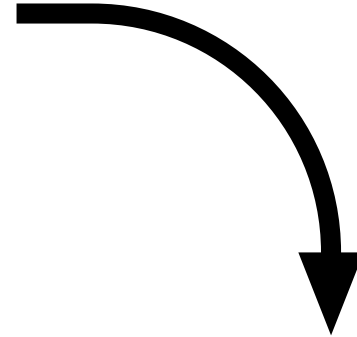


A detailed LEGO Technic construction of a servo-controlled kicker. The device features a central vertical frame with two large white gears on either side. A long, angled beam structure extends from the top, ending in a black rectangular foot. At the base, two long, curved beams serve as independent grabbers. The entire assembly is built using grey and white Technic bricks and beams, with black and red wires visible on the left side. The device is placed on a light-colored wooden surface.

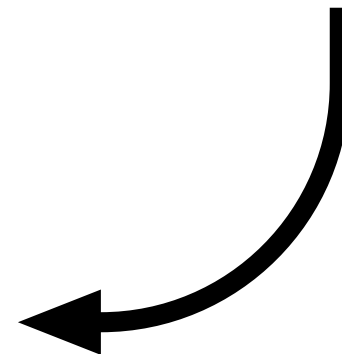
SERVO-CONTROLLED KICKER

INDEPENDENT GRABBERS

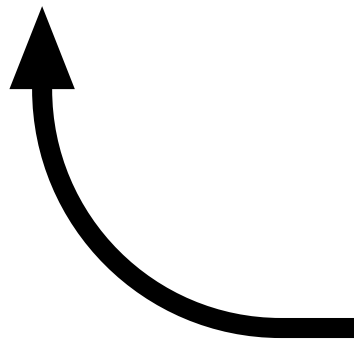
VISION



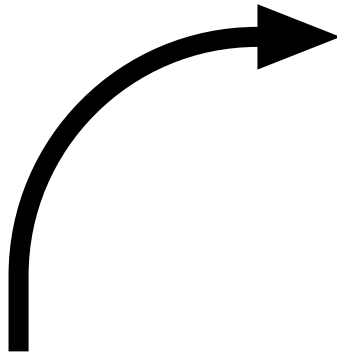
STRATEGY

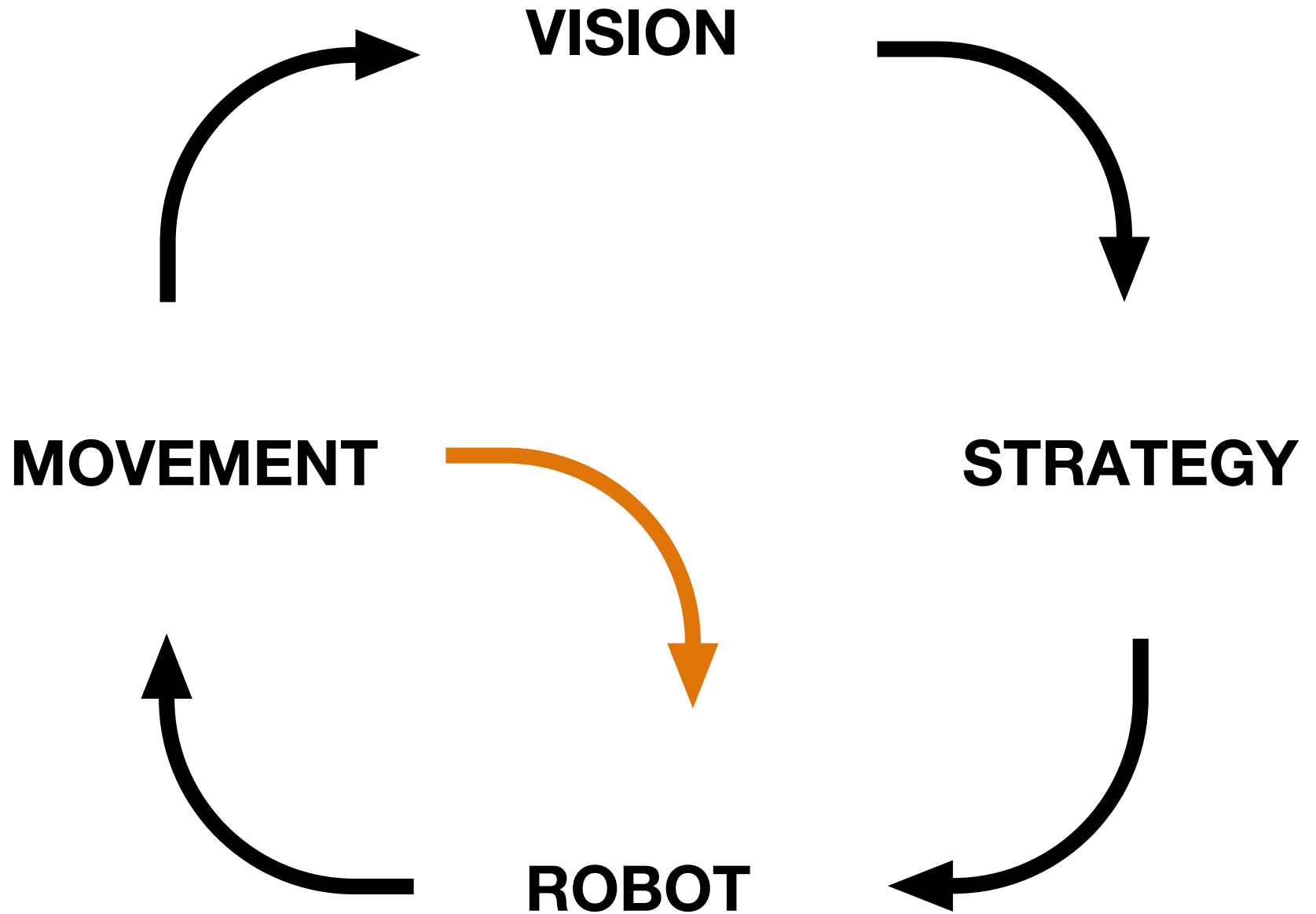


ROBOT



MOVEMENT

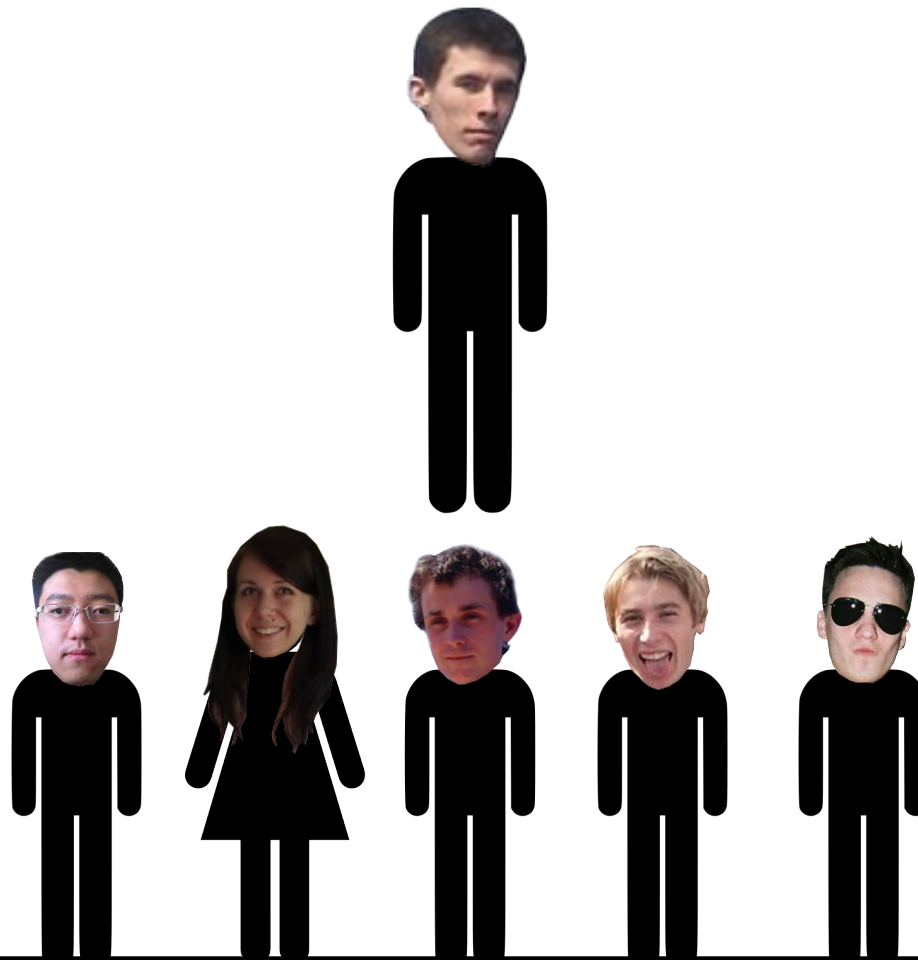






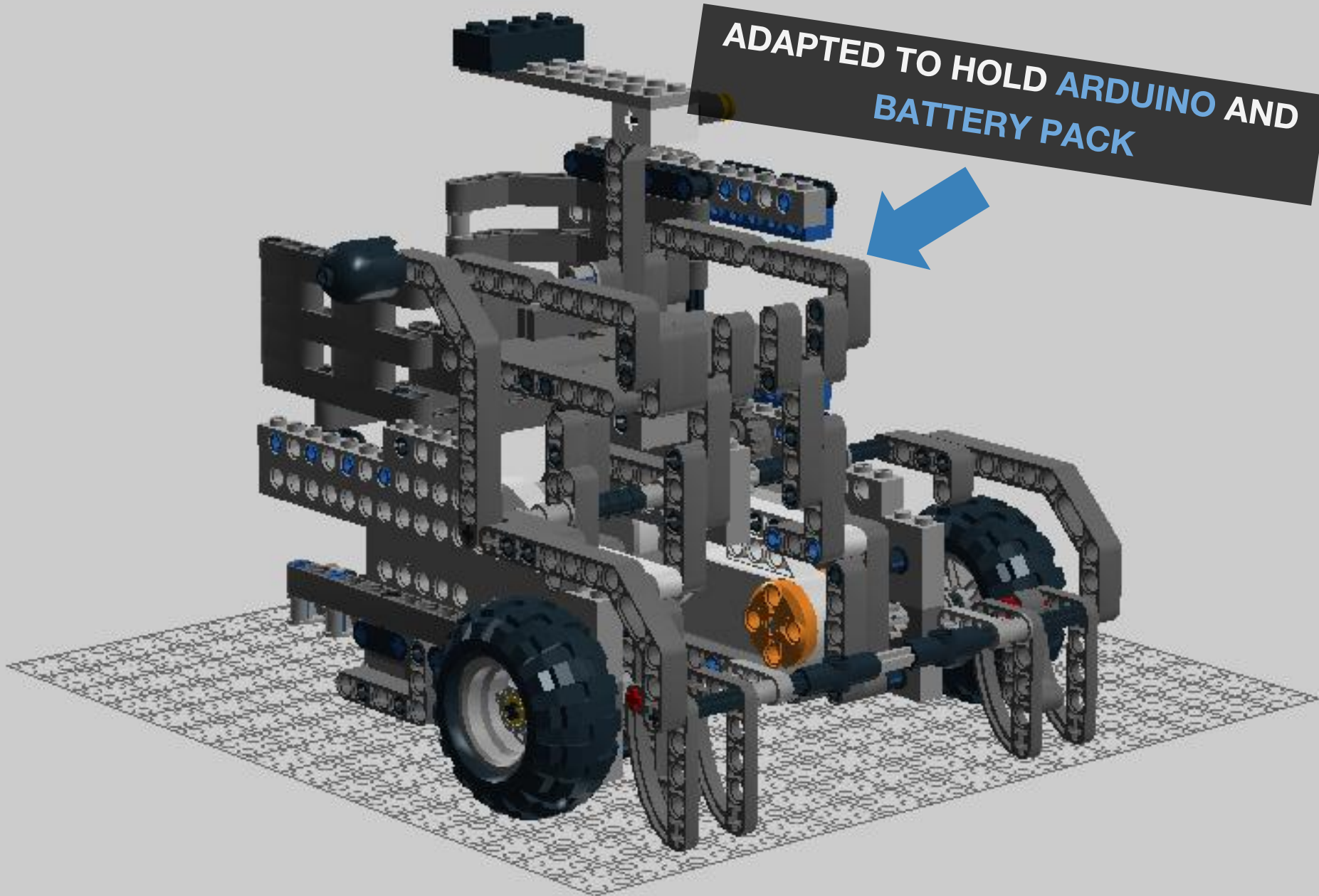
The
ATTACKER
"Cristiano Roboto"



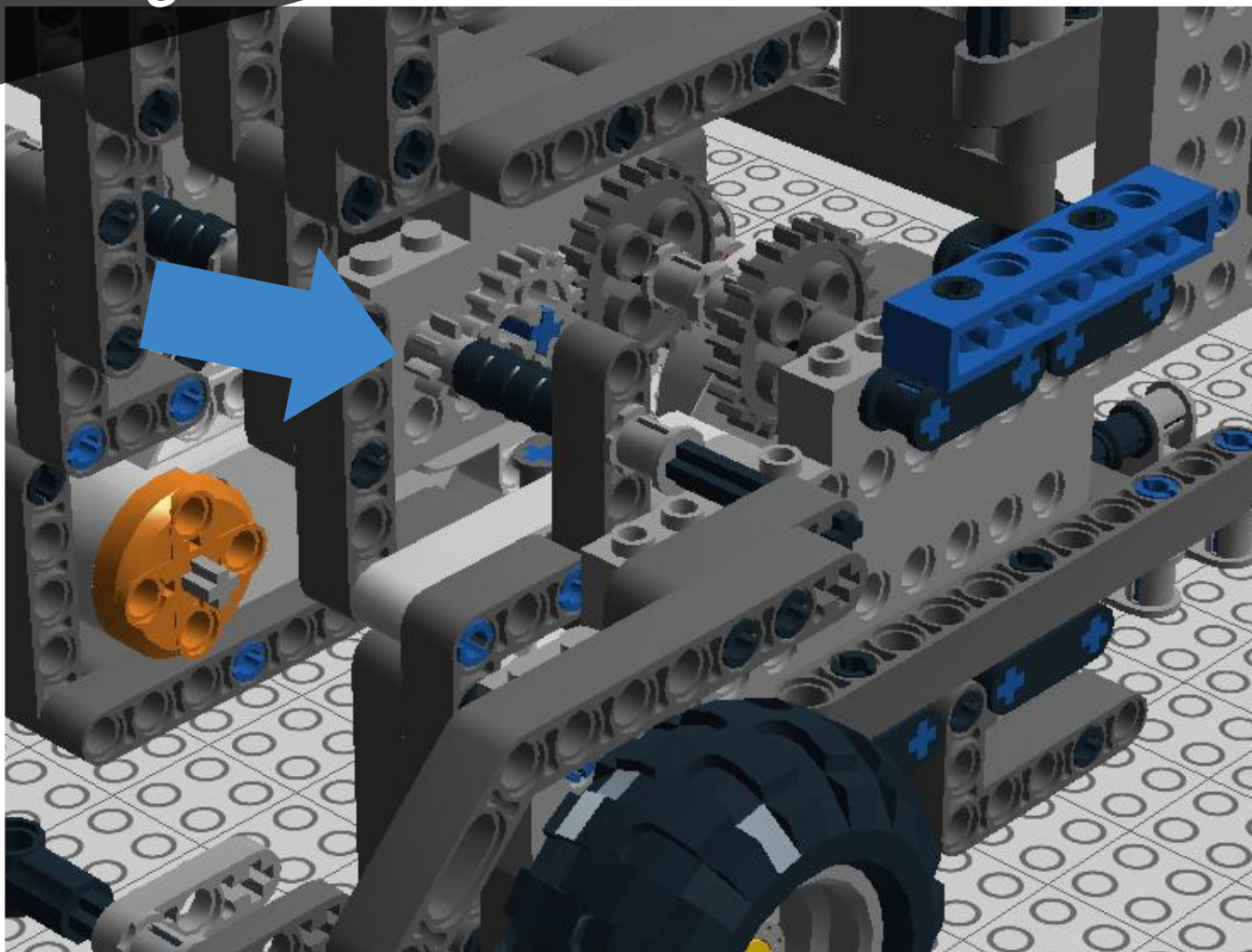


WOLF PACK STRUCTURE

ADAPTED TO HOLD ARDUINO AND
BATTERY PACK

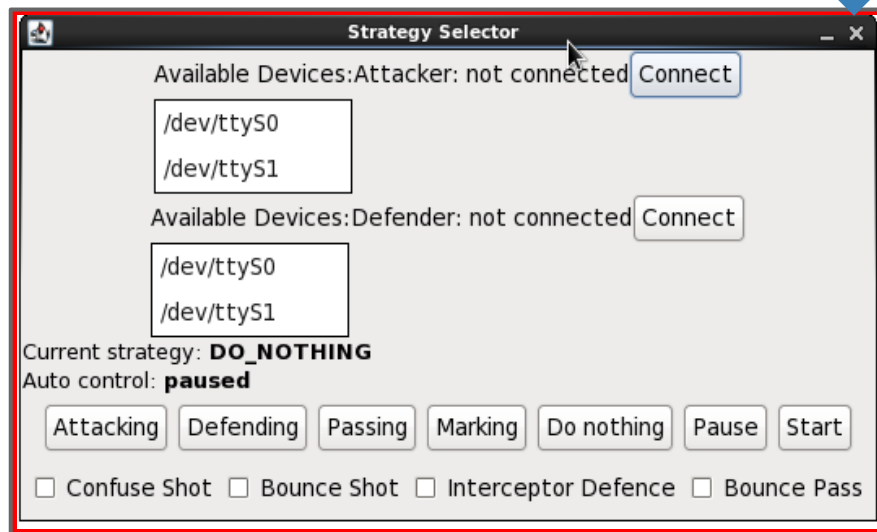


GEARING ADDED TO WORK WITH
SERVO



Vision GUI

STRATEGY SELECTOR



Strategy Selector

Available Devices:Attacker: not connected

Available Devices:Defender: not connected

Current strategy: **DO_NOTHING**
Auto control: **paused**

☐ Confuse Shot ☐ Bounce Shot ☐ Interceptor Defence ☐ Bounce Pass

MATCH SETTINGS



Settings

Main Camera

Pitch: ☒ Main ☐ Side Room

Our colour: ☒ Blue ☐ Yellow

We are shooting: ☒ Left ☐ Right

Distortion Fix: ☐ On ☒ Off

Debug Overlay: ☒ On ☐ Off

Mouse Mode

☒ Off

☐ Black Border Selection

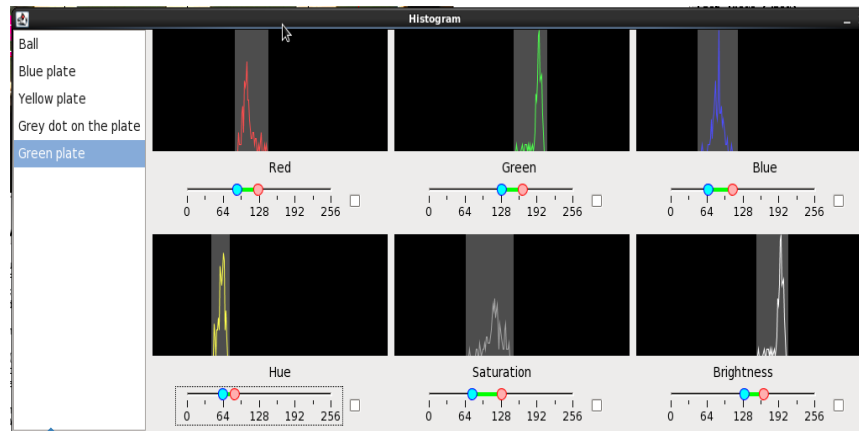
☐ Pitch Outline Selection

☐ Left Goal Selection

☐ Right Goal Selection

☐ Pitch Dividers Selection

☐ Target Selection



COLOUR THRESHOLDS

Vision GUI

MIRRORS OUR **HIERARCHY**
STRATEGY SYSTEM

Strategy Selector

Available Devices:

- /dev/ttyACM0
- /dev/ttyS0

Reconnect to /dev/ttyACM0

Disconnect

☒ Use Acknowledgements

Catch ResetCatcher Kick Stop Robot

Override Distance Threshold: 85

Override Angle Threshold: -1

Our Robot Position: -1

Attacker

Current Strategy: **ATTACKING_STRATEGY**

Current Plan: **TRACKING_ALLY_ROBOT_ANGLE TRAVEL_TO_PLAN 397 154 targetDeg = 92 currentDeg = -96 SLOW(50) ROUGH(40) R**

Current Operation: **TRAVEL_OP FORWARDS SMALL_DISTANCE(40)**

Strategy Sytem: **running**

Input: Send

Output: Clear

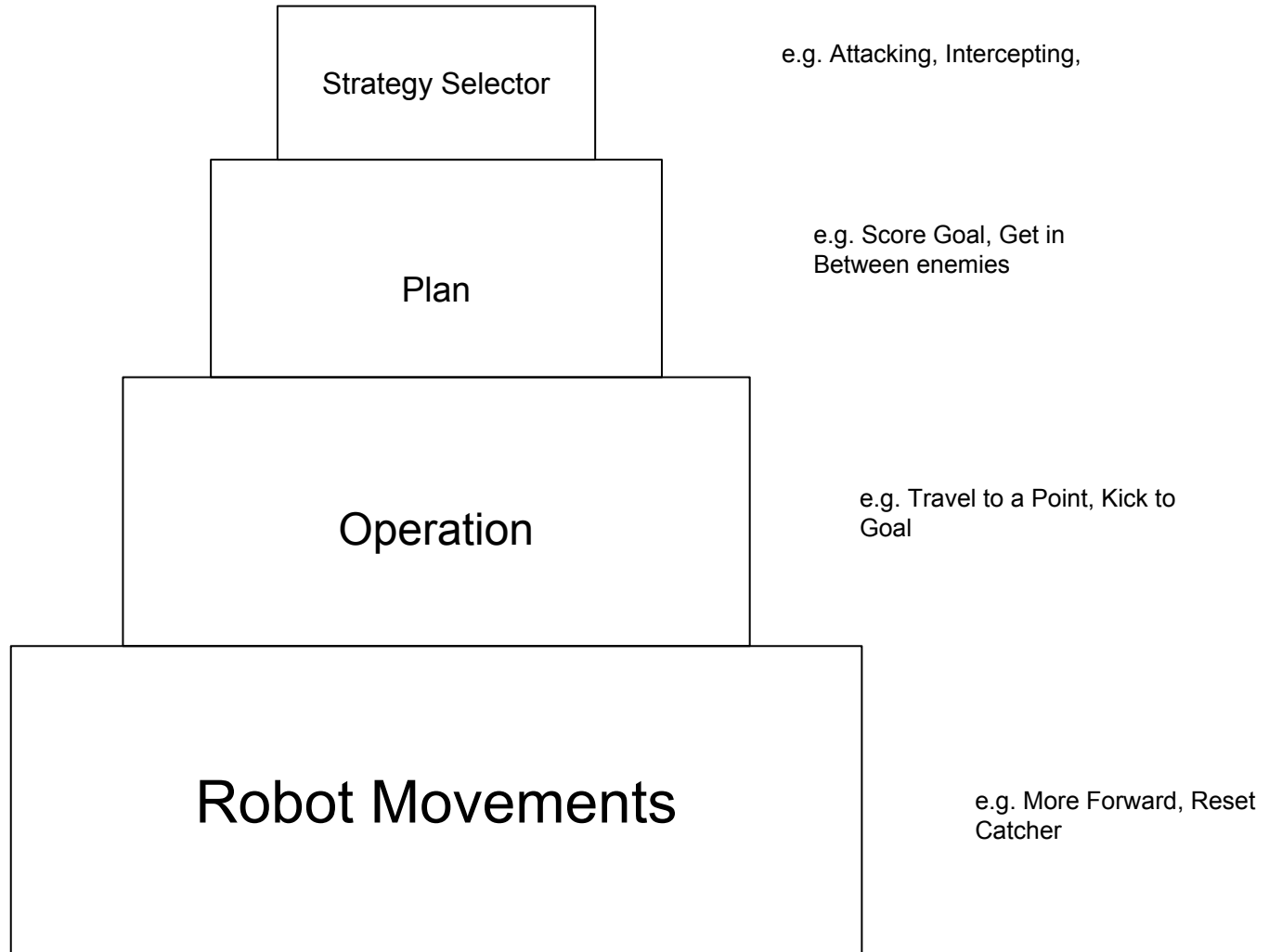
Pause Start Automatic Manual

Attacker Penalty Do Nothing Find Space

Pass Ordinary Pass Obstacle Receive Stationary Receive Moving

Track Ball

New Strategy System



Group 4

**Software
based
approach**

**Wolfpack
structure**

Group 14

**Hardware
based
approach**

**Flat
Structure**

