Minecraft Multi-agent Benchmark API Library

scanNearbyEntities

- args: (player_name: str, item_name: str, radius: int = 10, item_num: int = -1)
- description: Find minecraft item blocks creatures in a radius,
- return: ('message': msg, 'status': True/False, 'data':[('x':x,'y':y,'z':z),...]) This function can not find items in the chest, container,or player's inventory.

navigateTo

- args: (player_name: str, x: int, y: int, z: int)
- description: Move to a Specific Position x y z,
- return: string result

attackTarget

- args: (player_name: str, target_name: str)
- description: Attack the Nearest Entity with a Specific Name

navigateToBuilding

- args: (player_name: str, building_name: str)
- description: Move to a building by name,
- return: string result

navigateToAnimal

- args: (player_name: str, animal_name: str)
- description: Move to an animal by name,
- return: string result

navigateToPlayer

- args: (player_name: str, target_name: str)
- description: Move to a target Player,
- return: ('message': msg, 'status': True/False)

UseItemOnEntity

- args: (player_name: str, item_name: str, entity_name: str)
- description: Use a Specific Item on a Specific Entity,
- return: string result

sleep

- args: (player_name: str)
- description: Go to Sleep

wake

- args: (player_name: str)
- description: Wake Up

MineBlock

- args: (player_name: str, x: int, y: int, z: int)
- description: Dig Block at Specific Position x y z

placeBlock

- args: (player_name: str, item_name: str, x: int, y: int, z: int, facing: str)
- description: Place a Specific Item at Specific Position x y z with Specific facing in one of [W, E, S, N, x, y, z, A] default is 'A'.,
- return: ('message': msg, 'status': True/False)

equipItem

- args: (player_name: str, slot: str, item_name: str)
- description: Equip a Specific Item on a Specific Slot | to equip item on hand,head,torso,legs,feet,off-hand.

tossItem

- args: (player_name: str, item_name: str, count: int = 1)
- description: Throw a Specific Item Out with a Specific Count

talkTo

- args: (player_name: str, entity_name: str, message: str)
- description: Talk to the Entity

handoverBlock

- args: (player_name: str, target_player_name: str, item_name: str, item_count: int)
- description: Hand Item to a target player you work with,
- return: ('message': msg, 'status': True/False), item num will be automatically checked and player will automatically move to the target player

withdrawItem

- args: (player_name: str, item_name: str, from_name: str, item_count: int)
- description: Take out Item from nearest 'chest' | 'container' | 'furnace'
- return: string result

storeItem

- args: (player_name: str, item_name: str, to_name: str, item_count: int)
- description: Put in Item to One Chest, Container, etc,
- return: string result

craftBlock

- args: (player_name: str, item_name: str, count: int)
- description: Craft Item in the Crafting Table

SmeltingCooking

- args: (player_name: str, item_name: str, item_count: int, fuel_item_name: str)
- description: Smelt or Cook Item in the Furnace

erectDirtLadder

- args: (player_name: str, top_x, top_y, top_z)
- description: Helpful to place item at higher place Erect a Dirt Ladder Structure at Specific Position x y z, remember to dismantle it after use

dismantleDirtLadder

- args: (player_name: str, top_x, top_y, top_z)
- description: Dismantle a Dirt Ladder Structure from ground to top at Specific Position x y z

enchantItem

- args: (player_name: str, item_name: str, count: int)
- description: Enchant Item in the Enchanting Table

trade

- args: (player_name: str, item_name: str, with_name: str, count: int)
- description: Trade Item with the villager npc,
- return: the details of trade items and num.

repairItem

- args: (player_name: str, item_name: str, material: str)
- description: Repair Item in the Anvil

eat

- args: (player_name: str, item_name: str)
- description: Eat Item

drink

- args: (player_name: str, item_name: str, count: int)
- description: Drink Item

wear

- args: (player_name: str, slot: str, item_name: str)
- description: Wear Item on Specific Slot

layDirtBeam

- args: (player_name: str, x_1, y_1, z_1, x_2, y_2, z_2)
- description: Lay a Dirt Beam from Position x1 y1 z1 to Position x2 y2 z2

removeDirtBeam

- args: (player_name: str, x_1, y_1, z_1, x_2, y_2, z_2)
- description: Remove a Dirt Beam from Position x1 y1 z1 to Position x2 y2 z2

openContainer

- args: (player_name: str, container_name: str, position=[0, 0, 0])
- description: Open the nearest but might not the correct 'chest' | 'container' | 'furnace' position is optional,
- return: ('message': msg, 'status': True/False, 'data':[('name':name, 'count':count),...])

closeContainer

- args: (player_name: str, item_name: str, position=[0, 0, 0])
- description: Close 'chest' | 'container' | 'furnace' position is optional.

fetchContainerContents

- args: (player_name: str, item_name: str, position=[0, 0, 0])
- description: Get the details of item_name 'chest' | 'container' | 'furnace' position is optional,
- return: ('message': msg, 'status': True/False, 'data':[('name':name, 'count':count),...])

ToggleAction

- args: (player_name: str, item_name: str, x: int, y: int, z: int)
- description: open/close Gate, Lever, Press Button (pressure_plate need to stand on it, iron door need to be powered, they are not included), at Specific Position x y z

get_entity_info

- args: (player_name: str, target_name: str = '')
- description: Get the Entity Information,
- return: string contains entity name, entity pos x y z, entity held item

get_environment_info

- args: (player_name: str)
- description: Get the Environment Information,
- return: string contains time of day, weather

performMovement

- args: (player_name: str, action_name: str, seconds: int)
- description: Perform Action jump forward back left right for Seconds

lookAt

- args: (player_name: str, name: str)
- description: Look at Someone or Something

startFishing

- args: (player_name: str)
- description: Start Fishing

stopFishing

- args: (player_name: str)
- description: Stop Fishing

read

- args: (player_name: str, item_name: str)
- description: Read Book or Sign neaby,
- return: string details

readPage

- args: (player_name: str, item_name: str, page: int)
- description: Read Content from Book Page

write

- args: (player_name: str, item_name: str, content: str)
- description: Write Content on Writable Book or Sign