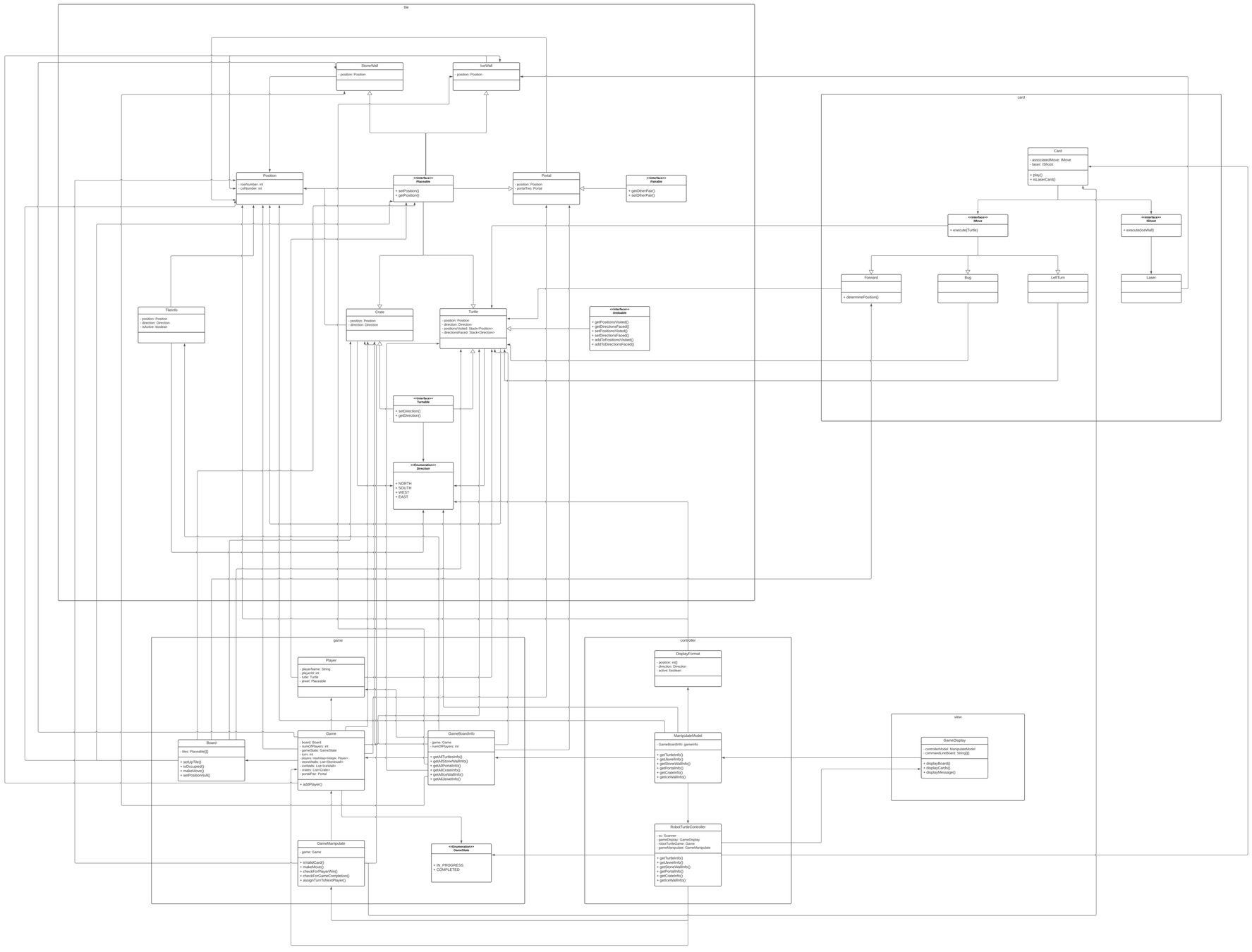
tile
StoneWall
- position: Position
IceWall
- position: Position
Position
- rowNumber: int
- colNumber: int
<<Interface>>
Placeable
+ setPosition()
+ getPosition()
Portal
- position: Position
- portalTwo: Portal
<<Interface>>
Pairable
+ getOtherPair()
+ setOtherPair()
TileInfo
- position: Position
- direction: Direction
- isActive: boolean
Crate
- position: Position
- direction: Direction
Turtle
- position: Position
- direction: Direction
- positionVisited: Stack<Position>
- directionsFaced: Stack<Direction>
<<Interface>>
Undoable
+ getPositionsVisited()
+ getDirectionsFaced()
+ setPositionsVisited()
+ setDirectionsFaced()
+ addToPositionsVisited()
+ addToDirectionsFaced()
<<Interface>>
Turnable
+ setDirection()
+ getDirection()
<<Enumeration>>
Direction
+ NORTH
+ SOUTH
+ WEST
+ EAST
card
Card
- associatedMove: IMove
- laser: IShoot
+ play()
+ isLaserCard()
<<Interface>>
IMove
+ execute(Turtle)
<<Interface>>
IShoot
+ execute(IceWall)
Forward
+ determinePosition()
Bug
LeftTurn
Laser
game
Player
- playerName: String
- playerId: int
- turtle: Turtle
- jewel: Placeable
Board
- tiles: Placeable[][]
+ setUpTile()
+ isOccupied()
+ makeMove()
+ setPositionNull()
Game
- board: Board
- numOfPlayers: int
- gameState: GameState
- turn: int
- playerMap: HashMap<Integer, Player>
- stoneWalls: List<StoneWall>
- iceWalls: List<IceWall>
- crates: List<Crate>
- portalPair: Portal
+ addPlayer()
GameBoardInfo
- game: Game
- numOfPlayers: int
+ getAllTurtlesInfo()
+ getAllStoneWallsInfo()
+ getAllPortalsInfo()
+ getAllCratesInfo()
+ getAllIceWallsInfo()
+ getAllJewelsInfo()
GameManipulate
- game: Game
+ isValidCard()
+ makeMove()
+ checkForPlayerWin()
+ checkForGameCompletion()
+ assignTurnToNextPlayer()
<<Enumeration>>
GameState
+ IN_PROGRESS
+ COMPLETED
controller
DisplayFormat
- position: int[]
- direction: Direction
- active: boolean
ManipulateModel
- GameBoardInfo: gameInfo
+ getTurtleInfo()
+ getJewelInfo()
+ getStoneWallInfo()
+ getPortalInfo()
+ getCrateInfo()
+ getIceWallInfo()
RobotTurtleController
- sc: Scanner
- gameDisplay: GameDisplay
- robotTurtleGame: Game
- gameManipulate: GameManipulate
+ getTurtleInfo()
+ getJewelInfo()
+ getStoneWallInfo()
+ getPortalInfo()
+ getCrateInfo()
+ getIceWallInfo()
view
GameDisplay
- controllerModel: ManipulateModel
- commandLineBoard: String[][]
+ displayBoard()
+ displayCards()
+ displayMessage()